Exploring the experience of participants applying a brief mindfulness intervention in response to food cravings for people engaging in emotional eating behaviour: A Thematic Analysis.

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Abstract

Food cravings have been associated with several problematic eating behaviours like emotional eating and binge eating. Brief mindfulness-based interventions have been found to be effective in the reduction of food cravings. However, these findings mainly come from quantitative experimental studies and do not capture the subjective experience of the participants using the intervention.

This study aimed at exploring the experience of participants applying a brief mindfulness-based intervention for a seven-day practice period in response to food cravings. Ten participants, that self-identified as eating emotionally, listened to a fourminute recording of a mindfulness intervention for seven days every time they experienced a food craving. Data were collected using semi-structured interviews and were analysed using thematic analysis. Four superordinate themes were produced by the analysis 'The process of applying the mindfulness intervention', 'Components at work during the mindfulness intervention', 'Effects of the mindfulness intervention' and 'Life after'. Each superordinate theme contained several subordinate themes.

The results of this study indicated that a brief mindfulness intervention that combines the components of present moment awareness and decentering can have positive effects on food cravings and emotional eating for people who engage in such behaviour. The results of this study suggest that brief mindfulness interventions can be effective and can have a practical application by being easily incorporated into

participants' everyday lives. These results also add to the literature about the effectiveness of brief mindfulness interventions on the reduction of food cravings. These findings could inform clinical practice and the development of effective and targeted brief mindfulness interventions for people engaging in emotional eating.

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List of abbreviations

- DBT Dialectical Behaviour Therapy
- HCPC Health & Care Professions Council
- IPA Interpretative Phenomenological Analysis
- MBCT Mindfulness-based Cognitive Therapy
- MBSR Mindfulness-based Stress Reduction
- NHS National Health System
- NICE National Institute for Health and Care Excellence
- TA Thematic Analysis

Chapter 1

Literature Review

1.1 Overview

This chapter presents a review and critical consideration of the existing literature and most recent research studies on the use of mindfulness-based interventions to address food cravings. It introduces the issue of unhealthy eating behaviours, explaining the different types, including external eating, restrained eating, and emotional eating. Since this study focuses on emotional eating behaviours, this chapter includes a discussion of the different components of mindfulness and their possible effects on addressing food cravings and emotional eating. It also discusses brief mindfulness interventions and their possible effects on food cravings. In conclusion, this chapter formulates a framework for the present study and forms a rationale for this thesis's research question. Finally, an outline of the aims of this research, the research question, and its relevance to counselling psychology is presented.

1.2 Introduction

Unhealthy eating behaviours, heavy food consumption, obesity, and eating disorders are rampant throughout the UK (Khan et al., 2018; Micali et al., 2017; Sonneville et al., 2015). More than one million individuals in the UK have a diagnosable eating disorder, representing more than six per cent of adults (Micali et al., 2017). Van Strien et al., (1986) proposed three different types of eating behaviours: external eating, restrained eating, and emotional eating. 1) external eating is defined as an increase in food intake triggered by external food cues rather than by an internal state of hunger or satiety, 2) restrained eating is associated with an intended effort to reach or preserve the desired weight through reducing calorie consumption, and 3) emotional eating is defined as an increase in food consumption triggered by an internal state of emotional arousals, such as anger, fear, sadness, or happiness. This research recruited participants who self-identified as eating emotionally.

Emotional eating is highly prevalent among adult populations and has been associated with physical and psychological issues including weight gain (Hübner et al., 2016; Koenders & van Strien, 2011), eating disorders (Leehr et al., 2015; Macht, 2008; Stice et al., 2002), and depressive symptoms (Konttinen et al., 2010; Pidgeon et al., 2013; van Strien et al., 2016). A longitudinal research study by Kidwell et al. (2017) suggested that depressive symptoms predict future emotional eating. Emotional eating has been defined as eating in reaction to emotional cues, often as a way to manage negative emotions (Kandiah et al., 2006; Konttinen et al., 2010). A review showed that emotional eating was consistently triggered by incidents of psychological distress, including depression, anxiety, anger, and loneliness (Ganley, 1989). Eating as a reaction to emotional cues may appear due to an individual's lack of awareness and competence in differentiating between psychological distress and physical hunger (Pinaquy et al., 2003). Thus, emotional eating may indicate an inclination to eat without awareness of the reasons for eating. Mindfulness may enhance individuals' awareness of the signals that trigger them to eat (Framson et al., 2009; Smith et al., 2006). Mindfulness has been found to be negatively correlated with psychological distress and disordered eating (Baer et al., 2006; Lavender et al., 2009). Several

studies support the effectiveness of mindfulness in reducing emotional eating behaviours (Kristeller & Wolever, 2011; Lattimore, 2020; Leahey et al., 2008; Levoy et al., 2017; Mantzios & Wilson, 2015; Pidgeon et al., 2013). Higher levels of craving have been associated with emotional eating (Blau et al., 2018; Verzijl et al., 2018). Accordingly, the development of mindfulness has been proposed as a way to potentially mitigate the unconscious eating that occurs following the experience of craving (Alberts et al., 2012; Lacaille et al., 2014; Loucks et al., 2016).

Food craving has been defined as an intense and irresistible desire or urge for special types of food (American Psychiatric Association, 2013). Food craving has been associated with emotional eating (Blau et al., 2018; Jarosz et al., 2007; Penaforte et al., 2019; Verzijl et al., 2018). In a recent study by El Archi et al. (2020), food craving was positively correlated with emotional eating for people at risk for an eating disorder. Food cravings are quite common; studies have shown that almost 52% to 97% of people have experienced food craving episodes (Christensen, & Pettijohn, 2001; Gilhooly et al., 2007) having negative results for eating behaviours such as binge eating and other eating disorders (Burton et al., 2007; Chao et al., 2016; Tiggeman, & Kemps, 2005), bulimia (Mitchell et al., 1985), and depression (Gendall et al., 1998). The elaborated intrusion (EI) theory of desire defines craving as a cycle of mental elaboration of a primary intrusive thought. This process includes seeking relevant information from memory and working memory manipulation to produce vivid imagery associated with the craved object and its acquisition (Kavanagh et al., 2005). According to this theory, this cognitive elaboration helps to sustain and enhance craving. Therefore, anything that inhibits or disrupts the elaborative process will also inhibit or reduce the craving episode (Kavanagh et al., 2005; May et al.,

2012). Mindfulness interventions have been proposed in agreement with EI theory as a way to achieve this, and more specifically the mindfulness components of present moments awareness and decentering (Kavanagh et al., 2005; May et al., 2012; Tapper, 2018). In accordance with EI theory, food craving is often deemed as an appropriate target for intervention with the notion that decreasing food craving or changing how one responds to it will affect the associated behaviour (May et al., 2012; Tapper, 2018; Verzijl, 2018; Wilson et al., 2021). This research utilised the mindfulness components of present moment awareness and decentering to address food cravings for people who self-identify as eating emotionally.

Mindfulness is the awareness that comes from paying purposeful, non-judgemental attention to the present experience (Kabat-Zinn, 2003). Bishop et al. (2004) proposed a two-component model of mindfulness: 1) self-regulation of attention to the present moment and 2) openness and acceptance of the present experience. Shapiro et al. (2006) also identified the component of 'intention', which is the idea that mindfulness is practised for a specific reason (e.g., stress reduction). They both proposed that the practice of these components results in another important strategy of mindfulness called 'decentering', also found in the literature as 'disidentification' or 'cognitive defusion' (e.g., Jenkins & Tapper, 2014; Lacaille et al., 2014). Decentering is viewing one's thoughts and feelings as transient events that are separate from oneself and do not necessarily reflect reality. Decentering can be targeted separately by asking the individual to visualise their thoughts and feelings as separate entities (e.g., Jenkins & Tapper, 2014; Papies et al., 2015). Studies containing mindfulness practices often fail to understand which mechanism of mindfulness is responsible for bringing about change

in a given setting or context (Brake et al., 2016; Goldberg, 2018; Hanley et al., 2016). As a possible response to this issue, the components of mindfulness can be studied separately in order to understand the effectiveness of each on specified outcomes. Several examples of empirical research investigating the different components of mindfulness exist (e.g., Brake et al., 2016; Heath et al., 2016; Levin et al., 2015; Papies et al., 2015; Papies et al., 2016; Tapper & Turner, 2018; Tatar et al., 2021). Mindfulness-based interventions have been shown to have benefits in various domains of health and wellbeing such as smoking cessation (Oikonomou et al., 2016), chronic pain (Hilton et al., 2016) problematic eating behaviours and food cravings (e.g., Alberts et al., 2012; Tapper, 2018; Tatar et al., 2021), and anxiety and depression (Hofmann et al., 2010).

One field that has seen a high volume of research related to mindfulness is counselling psychology. According to Goldberg (2018), this increased interest could be due to several overlapping areas between counselling psychology and mindfulness. For example, both consider psychological interventions important; they place an emphasis on strengths and an application in both clinical and non-clinical populations. Mindfulness has been particularly useful in counselling psychology because it can disrupt unconscious habits and patterns of thinking that precipitate mental health conditions such as depression, anxiety, and addictions including substance abuse and eating disorders (Heath et al., 2016; Papies et al., 2008; Goldberg, 2018). The evidence base pertaining to mindfulness and counselling psychology suggests that mindfulness is effective as a stand-alone intervention, as well as in conjunction with other efficacious approaches such as cognitive behavioural therapy (CBT) and

dialectical behaviour therapy (DBT) (Goldberg, 2018). This research studied mindfulness as a stand-alone intervention.

However, the existing research specifically in the domain of brief mindfulness interventions, food craving and emotional eating behaviour is vastly quantitative and experimental and as such, lacks an in-depth understanding of the participants' experience while engaging in a brief mindfulness practice (e.g., Alberts et al., 2012; Lacaille et al., 2014; Lattimore, 2020; Levoy et al., 2017; Pidgeon et al., 2013). The literature review for this research has revealed no qualitative studies to date on brief mindfulness interventions in relation to food cravings for people engaging in emotional eating behaviour. The following section introduces the background of this research and discusses relevant topics and the previous literature. This chapter concludes with identified gaps in the current literature on brief mindfulness interventions and food cravings in the context of emotional eating and introduces the aims and research questions of this study.

1.3 Literature Review

1.3.1 Mindfulness and emotional eating

A number of studies have provided evidence for the effectiveness of mindfulnessbased interventions in decreasing emotional eating behaviours (Kristeller & Wolever, 2011; Lattimore, 2020; Leahey et al., 2008; Levoy et al., 2017; Mantzios & Wilson, 2015; Pidgeon et al., 2013; Watford et al., 2019). In a systematic review by Katterman et al. (2014), the researchers examined long-term mindfulness-based approaches as an intervention for disordered eating and weight loss. Since no previous systematic reviews had investigated the effects of mindfulness interventions on people who struggle with problematic eating and/or weight but do not meet the criteria for an eating disorder, Katterman et al. (2014) examined 14 studies in which mindfulness was the primary treatment modality (ranging from 6 to 16 weeks), and they measured outcomes for binge eating, emotional eating, or weight. The outcomes of interest that were assessed included binge eating, emotional eating, and/or weight change, with the results indicating that mindfulness meditation is an effective intervention for reducing binge eating and emotional eating in populations that engage in this type of behaviour (Katterman et al., 2014). Although this review had some limitations regarding small sample sizes, heterogeneity of the studied population, intervention components and length of the intervention, and outcome measures, its results add to the literature on the effectiveness of mindfulness-based interventions for problematic eating behaviours such as binge eating and emotional eating. The results of this review also suggest the value of targeting mindfulness as an intervention for problematic eating behaviours such as binge eating and emotional eating for people who engage in such behaviours (Katterman et al., 2014).

Additionally, the literature review by O'Reilly et al., (2014) examined the effectiveness of mindfulness-based interventions for treating eating behaviours such as binge eating, emotional eating, and external eating, related to obesity. A sample of 21 papers was included in this review. A variety of mindfulness interventions were used, such as combined mindfulness and cognitive behaviour therapies, mindfulnessbased stress reduction, mindful eating, and combinations of mindfulness exercises. Targeted outcome measures included binge eating, emotional eating, external eating, and dietary intake. The results reported large effect sizes for binge eating and moderate to large sizes for external and emotional eating. These results provide further support that mindfulness-based interventions can be effective in changing behaviours like binge eating, emotional and external eating (O'Reilly et al., 2014).

The meta-analysis by Sala et al. (2020) explored the associations between mindfulness and eating disorder psychopathology, including a total of 74 independent samples. The results from this study showed that mindfulness was negatively associated with eating disorder psychopathology. The strongest associations were found in binge eating, emotional/external eating, body dissatisfaction, as well as acting with awareness and nonjudging facets. Based on these results, the authors suggested that mindfulness-based interventions might be most beneficial for reducing binge eating, emotional/external eating, and body dissatisfaction. The authors also suggested targeting specific components of mindfulness in future interventions. (Sala et al., 2020).

Other studies have been conducted that highlight this link between mindfulness and emotional and other disordered eating behaviours. For example, in Pidgeon et al. (2013), a non-clinical sample of 42 males and 115 females was used to study the contribution of mindfulness as a possible moderator between psychological distress and engagement in emotional eating; the research also controlled for general nutrition knowledge and gender. The study found that psychological distress was positively associated with engagement in emotional eating, while mindfulness had an inverse relationship (Pidgeon et al., 2013). In fact, the interaction between psychological distress and mindfulness significantly predicted the inclination to participate in

emotional eating. These findings support the use of mindfulness-based interventions for treating emotional eating practices in those experiencing stress, anxiety, and lower levels of depression. A limitation of this study is that the sample used was nonclinical, mainly comprised of female undergraduate students; therefore, the findings could not be generalised to a clinical population (Pidgeon et al., 2013). Additionally, although trait mindfulness skills were found to moderate the association between psychological distress and engagement in emotional eating, due to its cross-sectional design, this study cannot provide information regarding causality relating to the use of mindfulness and emotional eating reduction.

In a study by Watford et al. (2019), the researchers investigated whether greater mindfulness had a link with less frequent eating in response to various behavioural eating types, including general negative emotions, boredom, and positive emotions. Furthermore, the study aimed to determine whether emotion regulation and psychological well-being mediate the relationship between mindfulness and types of emotional eating (Watford et al., 2019). The researchers recruited 189 adults suffering from obesity/overweight and had them complete questionnaires and report their height and weight. After undertaking correlational analyses, they found greater mindfulness to be associated with less general negative emotions and boredom, but not positive emotions (Watford et al., 2019). Both emotion regulation and psychological wellbeing mediated the connection between mindfulness and both general negative emotions and boredom, which was demonstrated through mediation analyses; therefore, the relationship between greater mindfulness and less emotional eating may be explained by emotion regulation and psychological well-being (Watford et al., 2019). This lends credence to the fact that mindfulness interventions may enhance

adaptive emotion regulation and psychological well-being, leading to a decreased inclination to consume foods in response to negative emotions and boredom (Watford et al., 2019). A limitation of this cross-sectional study is that it is unknown whether mindfulness affects emotional eating or vice versa, and whether other variables influence the results. For example, engaging in emotional eating over time may result in less emotion regulation and psychological well-being, and consequently, less development of mindfulness skills (Watford et al., 2019).

Several studies have examined the effectiveness of mindfulness-based long-term interventions for the reduction of emotional eating behaviours. For example, Lattimore (2020) developed an emotional eating-specific mindfulness intervention, evaluating its effect on appetitive traits related to emotional eating. The researcher took a sample of 14 participants (90% female) and had them fill out baseline and endof-intervention self-report measures for mindfulness, stress, food-cue reactivity, emotional eating, intuitive eating, emotional impulse regulation, and a behavioural measure of inhibitory control (Lattimore, 2020). The intervention consisted of six weeks of teaching the participants mindfulness meditation skills, which were embedded in a psycho-educational curriculum that discussed emotional eating. Paired t-testing showed significant improvements in several measures, including stress, foodcue reactivity, intuitive eating, emotional impulse regulation, and inhibitory control, and there was a strong tendency towards a reduction in emotional eating (results approached significance) (Lattimore, 2020). A limitation of this study is that it did not have a control group which makes it difficult to determine which aspects of the intervention, mindfulness practice or psychoeducation, was responsible for the changes observed.

Alberts et al. (2012) performed a randomised controlled study involving 26 women with disordered eating behaviour (e.g., emotional eating, stress related eating) who were allocated to either an eight-week mindfulness-based eating intervention or a waiting list control. After eight weeks of treatment, the intervention group demonstrated significantly greater decreases in food cravings, dichotomous thinking, concern over their body images, emotionally induced eating, and externally induced eating than the control group. Although this study used a small sample size, it provided support for the effectiveness of mindfulness-based interventions for problematic eating behaviours.

The study conducted by Roosen et al., (2012) aimed to pilot a modified group dialectical behaviour therapy (DBT) intervention focusing on emotional eating. The sample consisted of 35 individuals suffering from obesity who scored high in emotional eating and did not meet the criteria for binge eating disorder. After 20 weekly sessions of two-hour group therapy, results suggested that emotional eating and other eating psychopathology scores were reduced, and there was consistency or reduction of body weight at post-treatment and at six months follow-up (Roosen et al., 2012). Although this study had no control group and a relatively small sample, it offered support for the effectiveness of mindfulness-based interventions for emotional eating.

The above studies suggested the effectiveness of mindfulness-based interventions for managing emotional eating; however, they did not explicitly target food cravings. Food craving has been defined as an intense and irresistible desire for special types of food (American Psychiatric Association, 2013). Several studies have associated food craving with emotional eating (Blau et al., 2018; El Archi et al., 2020; Jarosz et al., 2007; Penaforte et al., 2019; Verzijl et al., 2018). The following section will discuss the effectiveness of mindfulness in the reduction of food cravings and the importance of differentiating between the components of mindfulness.

1.3.2 Mindfulness and food cravings

Mindfulness interventions typically employ three basic components: present moment awareness, acceptance, and decentering (e.g., Lacaille et al., 2014; Tapper, 2018). Present moment awareness refers to directing attention to present moment experience; acceptance refers to adopting a non-judgemental attitude towards one's thoughts, feelings, and bodily sensations; decentering refers to viewing one's thoughts and feelings as transient mental events that are separate from oneself and do not necessarily reflect reality (Bishop et al., 2004; Shapito et al., 2006; Tapper, 2018).

Several studies have investigated the different components of mindfulness (e.g., Brake et al., 2016; Heath et al., 2016; Levin et al., 2015; Papies et al., 2015; Papies et al., 2016; Tapper & Turner, 2018; Tatar et al., 2021). Specifically in the context of food cravings, in recent decades mindfulness-based interventions have been used to target food cravings aiming to bring about changes to problematic eating behaviour (e.g., Alberts et al., 2012; Keesman et al., 2017; Lacaille et al., 2014; Papies et al., 2016). Research that has utilised and distinguished between components of mindfulness has shown that differentiating between mindfulness components can facilitate more targeted interventions that address specific problems, such as overeating and eating disorders (e.g., Alberts et al., 2012; Jenkin, &Tapper, 2014;

Kristeller et al., 2014; Lacaille et al., 2014; Papies et al., 2015; Papies et al., 2016; Keesman et al., 2017; Wilson et al., 2021). However, the results from these studies are often inconsistent regarding the effectiveness of specific mindfulness components.

Alberts et al. (2012) investigated the efficacy of a mindfulness-based intervention for problematic eating behaviours. The sample comprised 26 women with disordered eating behaviour (e.g., emotional eating, eating without awareness and/or overeating). Participants were randomly assigned to either the treatment group (n=12) or the waiting list control group (n=14). The treatment group went through an eight-week (eight weekly sessions of 2.5 hours each) specially designed mindfulness-based eating programme that included the mindfulness components of awareness and acceptance. The results of this study showed significantly lower levels of food cravings, dichotomous thinking, body dissatisfaction, emotional eating and external eating compared to the waiting-list control group. Although this study had a small sample size comprising only women and did not measure the effectiveness of awareness and acceptance as separate mindfulness strategies, its findings suggested that increasing the mindfulness components of awareness and acceptance the reduction of problematic eating behaviours (Alberts et al., 2012).

A study by May et al. (2010) examined the efficacy of awareness as a mechanism for managing food cravings. This study tested whether awareness of somatic sensations would reduce cravings in participants who frequently experienced food cravings. The results did not indicate any difference between the control and the experimental group on food cravings. Thus, identifying awareness alone as probably insufficient for reducing food cravings (May et al., 2010).

Studies exploring the effects of the mindfulness strategy of acceptance on cravings have also produced contradictory results. For example, Westbrook et al. (2011) examined the effectiveness of an acceptance strategy for the reduction of cigarette cravings. Participants (n=47) were instructed either to 1) simply "look" at the pictures or 2) to "mindfully attend" the pictures. Then participants were presented with pictures during functional magnetic resonance imaging (fMRI). The results from this study provided empirical support for the effectiveness of an acceptance strategy in reducing cravings. However, the study by Szasz et al. (2012) instructed a sample of 94 smokers to either reappraise, accept, or suppress smoking related stimuli. The results of this study associated acceptance with increased cravings.

Similarly, Alberts et al. (2013) explored the short-term effects of acceptance-based craving regulation. A sample of 65 participants was randomly assigned to either acceptance, suppression, or control conditions. Participants listened to five-minute audiotape instructions and were exposed to palatable foods. The results from this study showed that participants in the acceptance condition reported an increase in their food cravings contrary to participants in the other conditions (Alberts et al., 2013). The contradictory results from previous studies render the effectiveness of the acceptance component of mindfulness for reducing cravings unclear.

More consistent results on the efficacy of the mechanism of decentering on cravings have been found (e.g., Papies et al., 2012; Papies et al., 2015; Schumacher et al., 2018; Tapper & Turner, 2018; Wilson, 2021). Jenkins and Tapper (2014) investigated two mindfulness-based strategies on chocolate consumption. The 173 participants were assigned to one of three conditions using either cognitive defusion, acceptance, or relaxation (control) techniques to aid them in resisting chocolate. Cognitive defusion is a mindfulness-based strategy that encourages individuals to change the way they relate to their thoughts, to create a mental distance both between themselves and their thoughts and between their thoughts and reality. Participants were instructed to carry a bag of chocolates with them for a period of five days, spend five minutes using the technique in response to thoughts about chocolate and record any chocolate or chocolate-related products they ate in a dairy (Jenkins & Tapper, 2014). Questionnaires were completed to measure the degree to which chocolate consumption was automatic, both before and after the five days (Jenkins & Tapper, 2014). The results demonstrated that those in the cognitive defusion group ate significantly less chocolate from the bag and recorded less consumption in their diary; these changes were due to decreases in the degree to which chocolate was automatically eaten. There were no differences in chocolate consumption between the acceptance and control groups. The authors noted the importance of differentiating between the components of mindfulness and their effects on specific issues (Jenkins & Tapper, 2014).

Papies et al. (2016) performed a preliminary investigation of the effects of decentering as a mindfulness technique for managing food cravings. Drawing on 33 individuals with a history of meditation practice, the authors delivered a quantitative self-report instrument to determine their experiences with decentering, as well as a food cravings trait questionnaire. Results showed that food-specific decentering experiences are associated with reduced food cravings. These findings suggested that food-specific decentering is associated with positive self-reported effects on food

cravings for meditators. These findings support previous research showing the positive effects of decentering in regulating eating behaviours (e.g., Papies et al., 2015). This study, however, had a small sample size and used an unvalidated measure of food-specific decentering. The authors noted that this was a preliminary study and suggested the replication of the study with a larger sample which could also provide validation for the decentering measure for future research (Papies et al., 2016).

Adding to the existing literature, Lacaille et al. (2014) performed a quantitative intervention study comparing the effects of different combinations of three different mindfulness techniques (i.e., awareness, acceptance and disidentification) on chocolate cravings. At the pre-training session, participants (n=174) completed baseline questionnaires and were randomly assigned to four experimental conditions: Awareness, Awareness + Acceptance, Awareness + Disidentification, Awareness + Acceptance + Disidentification, and a control condition (a distraction exercise), and received accordingly audio instructions that lasted for approximately five minutes. For a two-week practice period, participants were asked to apply their instructions every time they experienced a chocolate craving, log their cravings and if they applied their instructions through an online questionnaire. Finally, at the post-training session, participants completed relevant questionnaires, were exposed to their favourite chocolate for one minute and rated their state chocolate craving. Results showed that the Awareness + Disidentification intervention had the greater reduction in chocolate cravings offering further support for the differential effects of various mindfulness skills, namely present moment awareness and disidentification, in reducing food cravings. Although this study supports previous findings, the mindfulness skills measure used was not validated, creating the need for future research using validated

measures. Several participants reported not practising every day for the two-week practice period of the experiment while regular practice is important in the acquisition of mindfulness skills (Kabat-Zin, 1990). The authors suggested that further research on the reasons that might prevent participants from engaging in everyday practice could be useful for finding ways to make mindfulness practice more accessible (Lacaille et al., 2014).

Wilson et al. (2021) discussed how, based upon the EI theory of desire, loading visual working memory should prevent and decrease cravings, since these occur when there is an embellishment of intrusive thoughts in working memory. For example, many people will elaborate upon these urges, seeing them as vivid mental images in the mind. Therefore, mindfulness-based decentering strategies may not only inhibit cravings but also decrease them, since these interventions can be used to deflect and redirect attention away from these mental images and thoughts focusing on craving (Wilson et al., 2021). In this study, Wilson et al. compared the impacts of visualisation versus decentering on cravings, with 108 participants randomly assigned to one of three conditions: 1) decentering, 2) visualisation or 3) mind-wandering control. For each condition, participants were given two audio exercises, including a two-minute exercise that preceded a craving induction, but followed initial deprivation and cue exposure; the second exercise was a four-minute one that followed the craving induction (Wilson et al., 2021). In these audios, participants were told to look at a plate of chocolate that was in front of them; then, depending on the group they were randomly assigned to, they would either decenter from their feelings and thoughts, engage in visualisation, or let their mind wander (Wilson et al., 2021). They then rated the strengths of their cravings at four different points in time:

1) baseline; 2) after the two-minute audio; 3) post-craving induction; and 4) post-fourminute audio. At the last time measure, the researchers also measured the frequency of craving-related thoughts and task adherence (Wilson et al., 2021). The findings showed that there was a significant decrease in craving strength for the decentering condition after both audio recordings when compared to the control group. Decentering was also superior to visualisation, but only after the two-minute audio (Wilson et al., 2021). Furthermore, those in both the visualisation and decentering conditions had significantly reduced frequencies of craving-related thoughts compared to the control participants. These results provide ongoing support for EI theory, while also indicating that mindfulness-based decentering strategies can be beneficial for both the prevention and reduction of cravings (Wilson et al., 2021). A limitation of this study was that it did not measure for consumption and thus cannot suggest whether craving reduction would transfer into a reduction in consumption as well. The authors suggested that further research is needed on this subject as well as the effects of these strategies outside the laboratory (Wilson et al., 2021).

1.3.3 Brief mindfulness interventions

Although some studies on food cravings have utilised long-term mindfulness-based interventions ranging from 1.5-hour to 2.5-hour sessions, for 4 up to 12 weeks (e.g., Alberts et al., 2010; 2012). Many studies have utilised short-term interventions ranging from 3- to 60-minute sessions, for a single session to up to two weeks (e.g., Jenkins & Tapper, 2014; Keesman et al., 2019; Papies et al., 2012; Marchiori & Papies, 2015; Lacaille et al., 2014; Tatar et al., 2021). Evidence suggests that brief

mindfulness inductions of about 3 to 15 minutes can be effective in reducing food cravings (e.g., Papies et al., 2012; Wilson et al., 2021).

In Howarth et al.'s (2019) systematic review, the researchers noted that traditional mindfulness-based interventions have been used with great success throughout various populations. However, these long-term programmes require a time commitment which has often been perceived as a hindrance by people. To address this issue, recent studies have investigated the effects of brief mindfulness-based interventions. Howarth et al. (2019) conducted a comprehensive systematic review of studies that assessed the effects of brief mindfulness-based interventions on mental or physical health-related outcomes. This review included studies that used brief interventions defined as lasting for up to 30 minutes on each occasion and up to four weeks. This review did not include qualitative or case studies. Out of the 85 studies selected, 84 were randomised controlled trials, 79 reported significant positive impacts on at least one health-related outcome, while more than 25% of the studies targeted a clinical population (Howarth et al., 2019). Most of the reviewed studies emphasised psychological outcomes, including depression, anxiety, stress, and emotion regulation, while some also included cognitive outcomes. Even though heterogeneity of outcomes was seen across studies, this systematic review demonstrated the existing evidence for brief mindfulness-based interventions and their positive impact on many outcomes related to health (Howarth et al., 2019).

In a study by Marchiori and Papies (2014), researchers investigated the impacts of a brief mindfulness-based intervention to promote healthy eating, examining whether a brief mindfulness manipulation can stop the portion size effect, leading to decreases in overeating unhealthy snacks when hungry. There were 110 undergraduate participants who first either listened to an audio book or performed a mindfulness exercise (14 minutes each), after which they were served either a small or large portion of chocolate chip cookies. The researchers also evaluated current hunger levels using a visual analogue scale prior to eating (Marchiori & Papies, 2014). The primary outcome measure was caloric intake from the chocolate chip cookies. The results showed that participants consumed more cookies (+83kcal) when offered a large portion (compared to the small portion), which was not impacted by either the mindfulness intervention or hunger (Marchiori & Papies, 2014). However, even though the participants in the control group consumed more unhealthy food when hungry than when not hungry (+67kcal), those in the mindfulness condition consumed significantly ferwe calories (+1kcal) (Marchiori & Papies, 2014). These results indicated that brief mindfulness-based interventions can be effective in decreasing the effects of hunger on unhealthy food consumption (Marchiori & Papies, 2014). The authors suggested that future research could examine how the integration of brief mindfulness interventions into daily life could affect eating behaviours (Marchiori & Papies, 2014).

Arch et al.'s (2016) study of the impacts of brief mindfulness-based interventions examined how these mindfulness instructions can improve the psychological and behavioural dimensions of eating. They conducted three experiments on a total of 319 undergraduates to investigate whether brief mindfulness instructions could improve the positive sensory experiences involved in tasting food and healthy eating behaviours (Arch et al., 2016). In the first two experiments, brief mindfulness instructions increased the enjoyment of not only a commonly pleasurable food (e.g.,

chocolate in the first study) but also a food that has mixed associations (e.g., raisins in the second study) (Arch et al., 2016). In the third experiment, these findings were replicated and extended to demonstrate that brief mindfulness instructions could result in reduced calorie consumption of unhealthy food, regardless of distractions or the absence of instructions given to participants (Arch et al., 2016). This effect was therefore mediated by greater eating enjoyment. Although the sample of this study was comprised of a healthy population and its findings cannot be generalised; the results showed that brief mindfulness instructions did have a positive influence on both health-relevant behaviour and sensory experiences that were linked with consuming food (Arch et al., 2016). Finally, the authors suggested that future research is needed in naturalistic settings to further explore these effects (Arch et al., 2016).

1.3.4 Qualitative studies

The literature review for this research revealed no qualitative studies to date on the topic of mindfulness in relation to food cravings for people who self-identify as engaging in emotional eating behaviours. A few slightly relevant qualitative studies were identified (Klassen-Bolding, 2018; Proulx, 2008; Tatar et al., 2021). For example, Proulx (2008) undertook a qualitative phenomenological study to investigate the experiences of six university women who had been diagnosed with bulimia nervosa. They participated in an eight-week mindfulness-based eating disorder treatment group that included eight, two-hour sessions. After the intervention, the participants were interviewed individually. These experiences were described as generally positive, with the participants developing better inner relationships with themselves which led to improved acceptance, compassion, and self-awareness

(Proulx, 2008). The author noted that mindfulness-based interventions may be beneficial for women with bulimia nervosa and could potentially provide prevention if applied to younger groups (Proulx, 2008).

In the phenomenological qualitative study by Klassen-Bolding (2018), the researcher examined the experiences of eight schoolgirls who had participated in a group mindfulness-based eating disorder prevention programme called Free to Be. The programme comprised of five, 50-minute sessions which included psychoeducation and mindfulness training. Participants reported that the programme itself was enjoyable and supportive, helping them to develop healthier relationships with their bodies and food; they described mindfulness as positively impacting their ability to regulate their emotions and increase awareness (Klassen-Bolding, 2018). A limitation of this study is that it only included girls from one classroom, most of whom had known each other for several years. This might have affected the findings of this study. Nonetheless, the results of this study could be useful in the development of prevention programmes for younger populations at risk of developing an eating disorder (Klassen-Bolding, 2018).

In Tatar et al.'s (2021) qualitative study, the researchers aimed to provide a firstperson analysis of the experiences of participants learning to apply a decentering strategy to their spontaneous responses to palatable food images. Through this qualitative research, they investigated how non-meditators learn and apply brief decentering-based mindfulness instructions in food cravings, with ten non-meditators listening to 'normal viewing' instructions; they were told to first see foods as they normally do, after which they watched a video of attractive foods and were then

interviewed regarding their experiences of not only learning, but also applying the instructions. They then listened to a five-minute recording of mindfulness instructions, after which they again watched another food video while applying the mindfulness instructions; another interview was conducted to discuss their experiences. Using a thematic analysis, the findings showed that when participants applied brief mindfulness, their relationship to the food stimuli changed; in fact, they began to perceive their experiences as transient. Both the waterfall metaphor used in the instructions to explain decentering and listening to the 'normal viewing' instructions facilitated this transformation. Furthermore, there were fluctuations in how easily the instructions were applied, which were associated with food preferences and perceived craving strength; participants also stated that they would use these instructions in daily life as needed. Nonetheless, barriers were predicated, including remembering to use these instructions and finding the time to apply them (Tatar et al., 2021). A limitation of this study was the online environment. Some participants found the use of online food images instead of real food to be a barrier. Additionally, participants were shown pictures of generic desirable foods that might not necessarily be seen as desirable by all, thus perhaps making the application of the decentering strategy easier. Furthermore, the sample used for this study was comprised of healthy eaters who might exhibit differences in learning and applying brief mindfulness than a clinical or sub-clinical sample of people who engage in disordered eating behaviours. The results from this qualitative study show that certain aspects impact how brief mindfulness instructions are both learned and applied. The findings from this study may inform the development of effective brief mindfulness techniques that could be integrated into daily life and clinical practice (Tatar et al., 2021).

1.4 Rationale, Aim and Relevance to Counselling Psychology

Many studies have demonstrated the importance of specifically targeting food cravings in an effort to decrease problematic eating behaviours (e.g., May et al., 2012; Tapper, 2018; Verzijl et al., 2018), while others have depicted the positive effects of mindfulness-based interventions on the reduction of food cravings and problematic eating behaviours such as binge eating and emotional eating (e.g., Alberts et al., 2012; Papies et al., 2015; Lacaille et al., 2014; Sala et al., 2020). Individuals engaging in emotional eating behaviour eat in reaction to emotional cues and often as a way to manage emotions (Kandiah et al., 2006; Konttinen et al., 2010). Binge eating is distinct from emotional eating, as individuals engaging in binge eating behaviour usually consume an uncommonly large amount of food in a discrete period of time (e.g., one to two hours) while experiencing a loss of control over their behaviour and is associated with distress regarding binge eating (American Psychiatric Association, 2013).

Higher levels of food cravings have been associated with emotional eating (Blau et al., 2012; Verzijl et al., 2018). Previous research has identified a link between emotional eating and eating disorders (Brockmeyer et al., 2014; Lavender et al., 2015; Leehr et al., 2015; Stice et al., 2002) and depressive symptoms (Kidwell et al., 2017; Konttinen et al., 2010; Pidgeon et al., 2013), which suggests the relevance of targeting a population that engages in emotional eating behaviours for counselling psychology. Previous research has also identified the positive effects of mindfulness in reducing emotional eating behaviours (e.g., Lattimore, 2020; Levoy et al., 2017), and several research findings support the effectiveness of mindfulness-based interventions in mitigating the unconscious eating that occurs following the experience of food

cravings (Alberts et al., 2012; Lacaille et al., 2014; Loucks et al., 2016). In addition, emotional eating has been identified as an important target of research on mindfulness interventions (Katterman et al., 2014; Lattimore, 2020). These findings indicate the importance of specifically targeting food cravings in a population that engages in emotional eating behaviours. However, research thus far has mainly been conducted either with general non-clinical populations or with participants having an eating disorder diagnosis (Lacaille et al., 2014; Levoy et al., 2017; Pidgeon et al., 2013; Proulx, 2008; Tatar et al., 2021; Verzijl et al., 2018). This research addressed this gap in the literature by recruiting participants who self-identified as engaging in emotional eating behaviour.

Previous research has shown that differentiating between the components of mindfulness can facilitate more targeted interventions (Alberts et al., 2012; Jenkins &Tapper, 2014; Keesman et al., 2017; Lacaille et al., 2014; Papies et al., 2015; 2016). Specifically, the components of present moment awareness and decentering were identified as having the most consistent positive results in reducing food cravings (e.g., Lacaille et al., 2014; Papies et al., 2012, 2015; Schumacher et al., 2018). However, as this literature review has shown, the majority of the studies conducted on food cravings and mindfulness are quantitative and/or experimental; and often fail to describe the exact strategies used as a mindfulness intervention. This makes it difficult to examine the effects of specific mindfulness components (for a review see Tapper, 2018). Additionally, most relevant studies also mainly employed self-report questionnaires to measure mindfulness and cravings and thus cannot provide an indepth understanding of the experience of the participants during a mindfulness-based intervention. Several authors have pointed out the need for further qualitative studies

in the field of mindfulness and food cravings that will facilitate a better understanding of the components and the processes at work during a mindfulness-based intervention (e.g., Pidgeon et al., 2013; Keesman et al., 2019; Klassen-Bolding, 2018; Tatar et al., 2021). Further, although several studies have indicated the effectiveness of applying a brief mindfulness intervention for the reduction of food cravings (e.g., Papies, 2012; Keesman et al., 2019; Schumacher et al., 2018), research to date has not identified the reasons that might prevent participants from applying it when experiencing a food craving (Keesman et al., 2019; Schumacher et al., 2018). The limited qualitative research identified by this literature review has not provided answers to the abovementioned questions. Only a few somewhat relevant qualitative studies have been identified (Klassen-Bolding, 2018; Proulx, 2008; Tatar et al., 2021). Although, the results of these studies provide support for the effectiveness of mindfulness-based interventions for the reduction of food cravings and prevention of problematic eating behaviours, such as eating disorders, further qualitative research is needed to gain a deeper understanding of the components and processes at work during a brief mindfulness intervention.

To address the identified gaps in the literature, this study conducted a qualitative exploration of the experience of participants applying a brief mindfulness intervention for a seven-day period in response to food cravings for people who self-identified as engaging in emotional eating behaviour.

Specifically, the aims of this study were as follows:

 To explore participants' experience applying a brief mindfulness intervention in response to food cravings.

- 2. To explore which components of mindfulness were at work during the mindfulness intervention.
- 3. To explore potential issues that might prevent participants from engaging with the mindfulness intervention when experiencing a food craving.

Research question: "What is the experience of participants applying a brief mindfulness intervention in response to food cravings?"

The results of this study may help to provide a deeper understanding of the components and processes involved in brief mindfulness practice that are responsible for inducing change and thus help in the development of brief mindfulness-based interventions in the context of food cravings and emotional eating behaviour which, in turn, could be incorporated into daily life and clinical practice. Utilising research to inform clinical practice is in accordance with the standards of proficiency for practitioner psychologists according to the Health & Care Professions Council (HCPC, 2015).
Chapter 2

Methodology

2.1 Introduction

This chapter begins with a presentation of the ontological and epistemological framework for this research. This is followed by a rationale about the chosen method of analysis and how thematic analysis is conducted. It proceeds to introduce the process of recruitment and the participants of this research. Lastly, this chapter provides a detailed account of the research procedure, data collection, and data analysis, followed by reflexivity and ethics.

2.2 Ontological and Epistemological Framework

2.2.1 Research paradigms for counselling psychology

A paradigm is defined as a "set of assumptions about the social world which provides a philosophical and conceptual framework for the study of that world" (Filstead, 1979, in Ponterotto, 2005, p. 127). According to their chosen research paradigm, researchers will hold specific views about the nature of reality (ontology), knowledge and knowing (epistemology), values of research (axiology), and the process and procedures of research (methodology) (Ponterotto, 2005). For this research Ponterotto's (2005) description of the four main research paradigms was deemed to be the most helpful for the understanding of knowledge acquisition.

Ponterotto (2005) describes four main research paradigms: positivism, postpositivism, constructivism-interpretivism, and critical-ideological.

The primary goal of positivist research is to provide an explanation of phenomena with the aim to eventually predict and control them (Ponterotto, 2005). Lincoln and Guba (1985) encapsulate the key assumptions of positivism: 1) social and natural sciences should aim at the discovery of laws that result in explanation and prediction, 2) they should use the hypothetico-deductive method, 3) concepts should be defined by empirical categories, 4) a true, identifiable reality exists, 5) the laws of nature derive from data, and 6) large samples reveal general causes or laws of nature. Positivism holds the ontological position of realism, suggesting that reality is a singular entity that exists and can be understood and discovered (Marshall, 2019). Positivism's epistemology stresses dualism and objectivism. Researcher and participant are independent (dualism) and through standard procedures, research can be conducted and analysed without any bias (objectivism) or influence. Positivism's axiological position claims that the researcher should remain detached from the research process and its methodology is mainly experimental. A criticism of positivism is for their claim that research can be objective and free of values. Though, for example, values are naturally shown in the choice of a research topic (Ponterotto, 2005).

Unlike positivists, post-positivists accept that the values, experiences, expectations, and theory of the researcher can influence the research (Zammito, 2004). They try to retain objectivity by acknowledging the potential influences of bias (Philips & Burbules, 2000). Another difference from positivism is that, while positivists believe in an objective, observable reality, post-positivists accept a true reality that can be observed and measured imperfectly, an ontological position of critical realism (Lincoln & Guba, 2000). This approach does not presume that data offer a direct link to reality but rather, that data needs to be interpreted to gain an understanding of the structures that cause the phenomena under research (Willig, 2013). They adopt a modified dualism/objectivism epistemological position which acknowledges that the researcher may influence the research (Ponterotto, 2005).

Constructivists hold that reality is constructed in the mind of the individual, rather than being an external reality, and that there are many plausible and changing realities (Hansen, 2004). Knowledge is neither objective nor subjective; rather, it is created as the individual interacts subjectively with the world (Marsall, 2019). They adopt a relativist ontology; they believe multiple realities exist, and it is influenced by context, the social environment, and the interaction between the researcher and the participants. They adhere to a transactional, subjectivist epistemological position which holds that reality is socially constructed and that the interaction between researcher and participant is crucial to observing and depicting the 'reality' of the participant (Ponterotto, 2005). Their axiology maintains that the researcher's values and experiences cannot be separated from the research. The Critical-Ideological paradigm is one of liberation and change; the research focuses on the dynamic values of the researcher. They see reality as shaped by ethics, cultural and political values, and power relations. Their goal is to empower participants and achieve liberation and change from oppression. They take values further than constructivists and they expect their values to influence the research and the outcome. Methodologically, they adopt naturalistic designs such as in-depth faceto-face interviewing and participant observation (Ponterotto, 2005).

The following section will discuss the ontological and epistemological positions adopted for this research.

2.2.2 Rationale of the chosen methodology and its underlying perspective

As the literature review conducted for this study has revealed, the majority of the existing research on the subject of food cravings and mindfulness-based interventions has largely been conducted within the positivism paradigm, primarily using quantitative methodologies, mainly employing self-report questionnaires to measure mindfulness and food cravings or conducting experiments using methods such as saliva collection to measure the effectiveness of the intervention. Such methods, however, do not allow for an in-depth understanding of the participants' experience (Willig, 2013). Several authors have stressed the need for further qualitative studies in the field of food cravings and mindfulness that will facilitate a better understanding of the components and processes at work during a mindfulness-based intervention and help identify the reasons that might prevent participants from applying the intervention when experiencing a food craving (e.g., Pidgeon et al., 2013; Keesman et

al., 2019; Klassen-Bolding, 2018; Schumacher et al., 2018). Attempting to address these gaps in the literature and gain a deeper understanding of the components and processes at work during a brief mindfulness intervention in response to food cravings as well as the reasons that might prevent its application, this research will adopt a qualitative approach. This approach allows for an in-depth exploration of individuals' experiences, detailed descriptions, and a greater understanding of phenomena that are not easily observable or quantifiable (Willig, 2013). The results of such research could help to plan specific brief mindfulness interventions for treating and preventing problematic eating behaviours.

According to Willig (2013), a qualitative researcher first needs to adopt an epistemological position of knowledge generation as it will inform the choice of the research method used to achieve that knowledge. This study aimed to explore the participants' experience of applying a brief mindfulness intervention in response to food cravings. More specifically, this study aimed to identify the specific components and processes at work during the mindfulness intervention and what might help to enhance or hinder the application and effectiveness of the intervention every time participants experience a food craving. This research assumes that psychological processes exist and can be identified and described and accepts that there is an objective truth viewed and experienced subjectively by each participant. The researcher attempted to uncover this subjective view through discussion with the participants, and to reach an understanding of the phenomenon under investigation through interpretation. Consequently, in an attempt to critically understand the subjective experience of each participant, this research assumes a critical realist epistemological position. A critical realist approach accepts that although our data can

provide us with information about the 'real' world, it does not assume that our data represent a precise manifestation of it. Rather, critical realists suggest that the data can expand our understanding of the processes and mechanisms that underlie the phenomena under research through interpretation (Willig, 2013). This research used thematic analysis (TA) as a method of data analysis.

2.2.3 Thematic analysis

Thematic analysis (TA) is a method for 'identifying, analysing and reporting themes within qualitative data' and it is extensively used in psychology related qualitative research (Braun & Clarke, 2006). TA has been regarded as a tool to use across different methods, such as Interpretative Phenomenological Analysis (IPA) and grounded theory, rather than a specific, stand-alone, methodology (Boyatzis, 1998). However, Braun and Clarke (2006) argued that TA can be a method in its own right provided that the theoretical and epistemological framework of the study was clearly stated. A major strength of TA is its flexibility. It is not tied to any ontological or epistemological framework, and it can be used to answer almost any type of research question (Braun & Clarke, 2013). A criticism of TA is that, because of its flexible nature, there are many poorly executed thematic analyses in research, which paid little attention to the quality of data analysis and provided little or no description of how the analysis was carried out (Braun & Clarke, 2006). In order to produce a good thematic analysis, this research includes a detailed, step by step description of the analysis of the data.

Other methods were considered for analysing the data from this research such as IPA and grounded theory. However, IPA is usually attached to a phenomenological epistemology and seeks to understand the participants' experience of phenomena related to their everyday lives (Larkin & Thompson, 2012; Smith et al., 2009). IPA was not deemed a suitable method for this research due to its phenomenological nature. IPA attempts to capture participants' everyday experiences regardless of any underpinning theories, relationships, psychological patterns, or processes that might form and/or shape these subjective experiences (Willig, 2012). This research, however, has theoretical underpinnings within the EI theory of desire as presented in the previous chapter. Additionally, this research is interested in exploring the specific components and processes of the brief mindfulness intervention, introduced to the participants by this researcher, that might facilitate change.

Another method that seeks to identify themes across the data is grounded theory. However, it was not considered a suitable method for this study as it aims to produce a theory grounded on the data provided (McLeod, 2001) which is not the aim of this study. Braun and Clarke (2006) suggested that TA could be a very useful method when exploring an under-researched area or a specific population that has not been researched on the topic before. Consequently, TA was considered a more suitable method of data analysis given the exploratory nature and the epistemological position of this study.

There are several decisions the researcher has to make when conducting TA, according to Braun and Clarke (2006). First, the researcher has to decide what counts

as a theme. According to Braun and Clarke (2006), a theme captures something important about the data in relation to the research question and provides a level of patterned response or meaning within the data. Braun and Clarke (2006) emphasised the importance of the researcher's judgement and flexibility to determine what a theme is. Themes can be identified using an inductive, 'bottom-up', way which is driven by the data themselves or a deductive, 'top-down', way which is more theoretically driven. Both 'bottom-up'/inductive and 'top-down'/deductive ways of identifying themes were employed for this study. This research attempted to provide a rich thematic description of the entire data set to provide a sense of the important themes for the readers. This was considered necessary as this study attempted to explore the under-researched area of food cravings for a population that engages in emotional eating behaviour and their experience of a brief mindfulness intervention over a seven-day period of application. At the same time, this research attempted to directly address the research question and used a more "theoretically" driven way of analysis to try and provide a more detailed analysis, for example, of the specific aspects of the brief mindfulness intervention that seemed to be more noticeable and effective for the participants or the reasons that might prevent participants from applying the mindfulness intervention when experiencing a food craving. Such an approach was also considered necessary because of the specific nature of this study that aimed at examining the specific components and processes involved during the brief mindfulness intervention, aiming to contribute to the creation of an effective, easy to use and incorporate into daily life, brief mindfulness intervention that could facilitate the reduction of food cravings for a population that engages in emotionally eating behaviour, hopefully resulting in the amelioration of that behaviour.

The researcher also needs to decide at which level the themes will be identified. This can be at a semantic or latent level. At a semantic level, the researcher identifies themes within the explicit meanings of the data without looking for anything more than what the participant has said. Ideally, the analytic process moves from description to interpretation, where there is an attempt to link to theory and previous literature (Braun & Clarke, 2006). At a latent level, the analysis goes beyond the semantic content of the data to examine the underlying ideas, assumptions and conceptualisations that inform the semantic content of the data (Braun & Clarke, 2006). Identification of themes was done at a semantic level for this research, while the researcher also attempted to move beyond just describing themes to interpreting their wider meaning and implications relative to previous literature and theory.

A six-phase process for conducting TA was provided by Braun and Clarke (2006). Phase one involved becoming familiar with the data through transcribing and repeated reading of the data. The researcher needs to immerse themselves in the data by reading actively, searching for meanings and patterns. During this phase, the researcher can begin to note initial ideas for coding. Coding involves the identification of aspects of the data that relate to the research questions (Braun & Clarke, 2013). Phase two followed, with the generation of initial codes. A code refers to 'the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon' (Boyatzis, 1998, p. 63). Phase three was organising the codes into possible themes. An initial thematic map could be useful at this stage to help with the formation of themes. Phase four involved reviewing and refining themes, which can be done at two levels. The first involves reviewing at the level of the coded data extracts, and the second involves reviewing

the entire data set. This phase should end when the different themes and how they fit together is clear. Phase five began when a satisfactory thematic map was produced. This phase involved defining and naming themes. This included identifying the essence of what each theme was about and determining what aspect of the dataset each one captured. The final phase was the write-up of the analysis, presented in a concise, coherent, and interesting way.

2.3 Participants

2.3.1 Recruitment

Participants were recruited through purposive sampling. That is, a specific group of people for whom the research question was relevant and who could possibly provide rich data for the topic of interest was targeted (Patton, 2002). A flyer (see Appendix 1) advertising the research was initially intended to be displayed at the University of East London campuses and other universities within the greater London area, as well as institutions that offered mindfulness classes. However, due to the restrictions put in place because of the COVID-19 pandemic this was no longer an option. The research was advertised online to university student groups and on the researcher's personal LinkedIn account. A mindfulness institution that the researcher had a previous connection with was contacted through email; however, they were not willing to circulate the flyer through email for privacy reasons.

The flyer invited participants who self-identified as engaging in emotionally eating behaviour and who would like to have a skill that could help them reduce their food cravings. Participants could self-identify as emotionally eating by answering the question 'Do you find yourself eating when feeling sad, lonely, or stressed?'. This question is an adaptation of the emotional eating subscale of the Three Factor Eating Questionnaire (TFEQ-EE; Karlsson et al., 2000). Participants expressed their interest in taking part in the research by sending an email to the researcher. Then, the researcher emailed the invitation letter (see Appendix 2) and the consent form (see Appendix 3). The invitation letter contained information about the purpose of the study, the criteria required to participate, a description of the procedure, data protection, anonymity, confidentiality, compensation and, the right to withdraw from the study.

For the purposes of this study, the following inclusion/exclusion criteria were identified. For participants to take part in this research, they had to a) self-identify as emotionally eating, b) experience food cravings at least once a day, and c) be over 18. Participants could not be part of the research if they a) had a diagnosis of an eating disorder, b) were currently taking medication that affected their appetite, and c) were engaging in substance or alcohol abuse. Participants were asked to read the information carefully and, if they decided to take part in the study, sign, and return the consent form. After receiving the signed consent form, the researcher emailed the participants to arrange the initial meeting.

Offering compensation to participants is a debatable issue, with arguments for and against it. As Braun and Clarke (2013) discussed, paying participants might suggest

that there is no other value in participating in research. On the other hand, they argued that participants do take out time from their everyday schedule to participate and the offer of some form of reward acknowledges this and can help to potentially make the research sample more inclusive. Braun and Clarke (2013) advised that if compensation is offered, it should be kept small and practically oriented (e.g., a £10-£25 voucher). Compensation in the form of a £20 Amazon voucher was offered to each participant for this study to encourage participation, and as an acknowledgement of the extended time commitment required from the participants.

2.3.2 Participants

Qualitative research requires a smaller sample size than quantitative research (Braun & Clarke, 2013). However, there is no specific rule as to the exact sample size needed for qualitative research. One useful concept for determining sampling size is data saturation, that is, the point at which the collection of additional data does not produce new information (O'Reilly & Parker, 2012). Data saturation is usually reached with six to twelve interviews (Guest et al., 2006). Braun and Clarke (2013) suggested that researchers should have enough data to tell a rich story, but not too much that it prevents deep, complex engagement with the data in the time available. Ten participants were recruited for this research. Two participants were male and eight were female, between the ages of 18 and 31. Most participants had minor to no previous experience with mindfulness and one participant had some prior experience with hypnosis. A demographic table can be seen below (Table 1). Pseudonyms were given to participants to protect their anonymity.

Table 1. I	Participants'	demographics
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Name	Gender	Age
Lena	Female	23
Catherin	Female	31
Hillary	Female	21
Stella	Female	21
Jenny	Female	22
Nadia	Female	20
Ann	Female	22
Kate	Female	24
Jay	Male	18
Matthew	Male	23

2.4 Research Procedure

The procedure for this research required the participants to attend an initial meeting, followed by a seven-day intervention period and a semi-structured interview at the end. Both the initial meeting and the final semi-structured interview were conducted online via MS Teams due to the restrictions that were in place because of the COVID-19 pandemic. All interviews took place between July 2020 and October 2020. Participants were initially emailed and asked to fill in a demographic/screening

questionnaire (see Appendix 4). If participants met the inclusion criteria, then the researcher confirmed their eligibility for participation in the study. All ten participants were eligible to take part in the research. After each participant had read the invitation letter and signed the consent form, they were invited for an initial meeting with the researcher which lasted between 10 and 15 minutes. During the initial meeting the researcher explained in detail what the seven-day intervention period involved. During the seven-day intervention period, participants were invited to listen to a brief (approximately four minutes) mindfulness intervention every time they experienced a food craving. The researcher provided an audio recording of the mindfulness script. The script chosen for this brief mindfulness intervention was an adaptation of the one used by Keesman et al. (2019). (Refer to Appendix 5 for the script of the mindfulness intervention). The researcher additionally provided each participant with a daily record table (see Appendix 6), which was purposefully designed to assist the participants to record their daily experience and was intended to be used as an aid for recollection during the final interview. It was verbally communicated to the participants that the completion of the daily record was voluntary and that they would not be required to return it to the researcher. The researcher went through the mindfulness script with the participants, answered any relevant questions, and made certain that the participants were clear about what the process involved by asking them to repeat the instructions. At the end of the initial meeting, the researcher and the participant agreed on the specific date that the participant wished to begin the seven-day practice, which was usually one or two days after the meeting and arranged the date for the final interview to take place, which was usually on day eight or nine. The researcher then sent an email to the participants thanking them for attending the initial meeting, confirming the date and time of the final interview, and included as an

attachment the file with the audio recording for the brief mindfulness intervention and the daily record file. After the final, semi-structured interview was conducted, the researcher emailed participants the debriefing letter (see Appendix 7), their personal code to be used in case they wished to withdraw their data within the determined time frame, and the £20 Amazon voucher.

2.5 Data Collection

Semi-structured interviews were used as a means of collecting data for this study. This a widely used method in qualitative research in psychology (Willig, 2013). A semi-structured interview contains a rather small number of open-ended questions (Willig, 2013). The interviews were conducted after the seven-day intervention period of applying the brief mindfulness intervention in response to food cravings. All interviews were conducted online via MS Teams either on day eight or nine between July and October 2020. They were audio recorded using a digital audio recording device and transcribed verbatim by the researcher.

An interview schedule (see Appendix 8) was created before the interviews, which served as a guide for the interview and allowed the interviewer to follow up on any new issues that might emerge (Willig, 2013). To develop the interview schedule, the researcher drew from the review of the relevant literature, the aims of the research and the research questions (Braun & Clarke, 2013). The interview schedule began with an open-ended question to allow participants to freely share their experience and facilitate the researcher to build trust and rapport with the participants. Prompts and probes were also used to encourage participants to elaborate on and expand their answers (Braun & Clarke, 2013; Willig, 2013).

A pilot interview was conducted in which the participant was asked to provide feedback on both the initial meeting and the final semi-structured interview to ensure the clarity and efficiency of the entire research process. Based on the feedback received from the participant, some additional verbal clarification regarding the use of the daily record were added during the initial meeting. The interview schedule remained the same. The pilot interview was used as data with the consent of the participant.

2.6 Data Analysis

The analysis of the data followed the six phases of TA as described by Braun and Clarke (2006). Table 2 summarises the six phases of TA.

Table 2: Phases of thematic analysis (Braun & Clarke, 2006).

1. Familiarising with the data	Transcribing, reading, and rereading the data,	
	writing initial ideas.	
2. Initial coding	Producing initial codes from the data that appear to	
	be interesting to the analyst.	

3. Searching for themes	Sorting codes into potential themes and gathering
	all relevant data for each theme.
4. Reviewing themes	Checking that themes work in relation to the coded
	extracts and the entire data set. Generate a thematic
	map.
5. Defining and naming	Generate clear names and definitions for themes.
themes	
6. Writing the report	Selection of compelling extracts, final analysis, and
	production of an interesting and coherent narrative
	of the data.

In phase one, the researcher began the analysis by listening to each audio-recorded interview and producing verbatim transcripts for each interview which included all verbal statements to maintain all information and be true to the original nature of the audio account (Braun & Clarke, 2006). For the researcher to immerse further in the data, each transcript was actively read and reread, and preliminary notes were produced in the left-hand margin of the transcript (see Appendix 9 for an example).

Moving on to phase two, each transcript was analysed individually and initial codes from the data were produced. The codes were noted down in the right-hand margin of the transcript (see Appendix 9 for an example). Then, an Excel document was created where all identified codes and their corresponding extracts were listed, and colour coded for each individual transcript (see Appendix 10 for an example). This process ended with the creation of a separate Excel sheet where all identified codes and their allocated extracts from across the data set were listed (see Appendix 11 for an example).

This facilitated comparison and progression to phase three, searching for themes. This phase involves sorting the identified codes into potential themes and collating all the corresponding extracts within the identified themes. Braun and Clarke (2006) suggested the use of visual representations to aid during this process. The Excel sheet with all the identified codes and corresponding extracts was then printed out (see Appendix 12) which facilitated the formation of an initial thematic table featuring nine potential themes and subsequent subthemes (see Appendix 13).

Phase four involved reviewing and refining the previously identified potential themes. This was achieved through revisiting all relevant codes and extracts and considering whether they appeared to form a coherent pattern. Then the validity of the potential themes in relation to the entire data set was examined by rereading the entire data set which also allowed for any missed data to be included (Braun & Clarke, 2006).

Phase five involved defining and naming themes. A concise definition and summary were created for each theme and sub-theme. At this point the researcher began to ascertain the narrative of each individual theme and an overall narrative across the entire data set started to form. The themes were named keeping in mind Braun and Clarke's (2006) suggestion to be "concise, punchy, and immediately give the reader a sense of what the theme is about" (Braun & Clarke, 2006, p.93). At the end of this process, a thematic table with four themes and subsequent subthemes was produced (Appendix 14).

The last phase involved the final analysis and write-up of the report. According to Braun and Clarke (2006), the purpose of the write-up is to present a coherent and convincing story of the data to the reader. It is imperative to include sufficient data extracts for each theme that capture the essence of the point each theme is making and in relation to the research question. Following these guidelines, the findings of this analysis are reported in the subsequent analysis chapter.

2.7 Reflexivity

A basic part of good qualitative research is reflexivity. That is, reflecting on the knowledge we produce, and bearing in mind that who we are, and the assumptions we hold as researchers, can influence the produced knowledge (Braun & Clarke, 2013). My personal interest in mindfulness in relation to food cravings began approximately four years ago while I was studying for my MSc in Psychology. Ever since, I have gradually become more involved with mindfulness practice by attending an eightweek mindfulness-based stress reduction (MBSR) course, by taking individual courses, and practicing mindfulness very often in my daily life. I have found mindfulness practice to have a positive effect on me as a person and as a practitioner. As a counselling psychologist, I aspire to incorporate mindfulness-based interventions into my practice. Throughout the course of this research, I attempted to remain conscious of how my personal assumptions and beliefs about the effectiveness of mindfulness practice in addressing food cravings could potentially affect the way I conducted the interviews, for example, the way I might phrase a question or use a follow-up question to steer a participant towards a specific direction. I was able to

address this by discussing my interview schedule with my supervisor and remaining aware of my own thoughts and emotions during the interviews and maintaining a neutral position as an interviewer. I was also mindful of the influence that my own assumptions and expectations could have during the process of data analysis and interpretation.

2.8 Quality and Validity

In order to conduct good and valid qualitative research, the four principles proposed by Yardley (2000) for research were applied. Yardley (2000) proposed four basic validity principles for qualitative research: 1) sensitivity to context, 2) commitment and rigour, 3) transparency and coherence, and 4) impact and importance.

A researcher can demonstrate sensitivity to context in a qualitative study by contextualising the research in relation to the relevant literature, being sensitive to participants' perspectives and being sensitive to the data during analysis. Following this principle, the position of this research within the relevant literature was clarified and the aims of the research were clearly stated in Chapter One. Specifically, this research aims to qualitatively explore participants' experience of applying a brief mindfulness intervention targeting food cravings for people who self-identify as engaging in emotional eating behaviour. The researcher was open and sensitive to participants' perspectives during the interviews by asking open-ended questions and providing time for them to talk about their experience. The next principle, commitment and rigour, can be demonstrated by thorough data collection, breadth and/or depth of analysis, methodological competence and skill. This principle was

followed by the researcher being attentive to each participant throughout the process of data collection and analysis. The process of TA as described by Braun and Clarke (2006) was followed by the researcher becoming immensely engaged with the data. The researcher aimed to maintain transparency throughout the research process by clearly describing each stage of the research and through continuous reflexivity. Finally, this researcher aimed to produce a study that could have a practical impact on counselling psychologists' clinical practice in the future.

2.9 Ethics

This research received ethical approval from The University of East London's School of Psychology Ethics Committee in May 2020 (see Appendix 15).

The British Psychological Society's Code of Human Research Ethics (2014) was adhered to throughout this research. In accordance with its principles, participants were provided with an invitation letter (see Appendix 2) that contained all relevant information about the research including its aims, nature, procedure, data collection method, confidentiality, anonymity, data protection and right to withdraw. Participants signed an informed consent form (see Appendix 3) before taking part in the study and at the end of the study they received a debrief letter (see Appendix 7).

To ensure participants' anonymity and confidentiality, each participant was given a pseudonym and their personal information was kept in a separate encrypted file that only the researcher could access. In case participants experienced any distress during

the seven-day practice period, the researcher's contact details were provided, and it was clearly communicated to the participants that they could withdraw from the study at any point during the seven-day practice period. If any participants experienced distress during the interview, this researcher would use their skills as a practicing counselling psychologist to contain and support the participant.

Chapter 3

Analysis

3.1 Introduction

This chapter presents the findings produced by the analysis of ten participant interviews. This analysis highlights their experiences of applying a brief mindfulness intervention in response to food cravings for a seven-day practice period. The analysis suggests that four superordinate themes seem to reflect the participants' subjective experiences. These themes are: 'The process of applying the mindfulness intervention', 'Components at work during the mindfulness intervention', 'Effects of the mindfulness intervention' and 'Life after'. Each theme along with its corresponding subthemes is shown in Table 3. Each superordinate theme and the subordinate themes are presented, along with data extracts from across the data set, in the following section of this chapter.

Theme	Subthemes
1. The process of applying	1.1 Initial challenges
the mindfulness intervention	1.2 Blocked by intense emotions
	1.3 In the presence of others
	1.4 Acquired skill

Table 3. Final themes and subthemes

2. Components at work	2.1 Thoughts as transient events
during the mindfulness	2.2 Present moment awareness
intervention	
3. Effects of the mindfulness	3.1 Food cravings
intervention	3.2 Dual effect
4. Life after	4.1 Transferable skill
	4.2 Incorporate mindfulness into
	daily life

3.2 Overview of Themes

<u>Theme 1: The process of applying the mindfulness intervention</u> considers the process participants went through while applying the mindfulness intervention over the sevenday practice period of the study. This process is better described through the following four subthemes:

<u>Subtheme 1.1 – Initial challenges</u> illustrates some of the difficulties participants faced at the beginning of the seven-day practice period.

<u>Subtheme 1.2 – Blocked by intense emotions</u>. Almost all participants mentioned the intensity of their emotions as an important component determining either their decision to apply the mindfulness intervention or its effect after the application.

<u>Subtheme 1.3 – In the presence of others.</u> Most participants mentioned finding it challenging to engage with the mindfulness intervention in the presence of other people. Interestingly, most participants also discussed a way they could overcome this challenge, this is presented in subtheme 1.4.

<u>Subtheme 1.4 – Acquired skill</u> Several participants said that after having listened to the mindfulness script a few times they were able to recall it without having to actually listen to the recording.

<u>Theme 2: Components at work during the mindfulness intervention.</u> This theme considers the different components at work for the participants while applying the mindfulness intervention. All ten participants talked about how the brief mindfulness intervention helped them to view their thoughts about food as transient events and use the metaphor of the waterfall as a facilitator of this process. This component is described in <u>Subtheme 2.1 – Thoughts as transient events.</u> Most participants also mentioned noticing an increase in their present moment awareness, which facilitated change in their food cravings and emotional eating behaviour. This component is described in <u>Subtheme 2.2 – Present moment awareness.</u>

<u>Theme 3: Effects of the mindfulness intervention.</u> This theme considers the reported effects by the participants after the application of the brief mindfulness intervention for the seven-day practice period. These effects are discussed in the following two sub-themes. <u>Subtheme 3.1 – Food cravings</u>. All ten participants mentioned either having their food cravings reduced after applying the brief mindfulness intervention or making a different choice afterwards. Some participants also mentioned that the

mindfulness intervention had a hindering effect on their usual impulsive eating behaviour after experiencing a food craving. Most participants talked about having a sense of empowerment and taking control of their food cravings as a result of the mindfulness intervention. <u>Subtheme 3.2 – Dual effect</u>. Most participants described the brief mindfulness intervention as having the dual effect of both emotional regulation and food craving reduction.

<u>Theme 4: Life after.</u> This final theme considers the participants' overall desire to continue using the mindfulness intervention further after the end of the study and the possible implications of that. Most participants talked about the brief mindfulness intervention as a skill that can be transferred to other situations in their lives, such as stress inducing events. This is illustrated in <u>Subtheme 4.1 – Transferable skill</u>. Some participants discussed ways to better incorporate the mindfulness intervention into their daily lives and schedules. A few participants offered suggestions on how to enhance the effectiveness of the mindfulness intervention according to their individual preferences. These are described in <u>Subtheme 4.2 – Incorporate mindfulness into daily life.</u>

3.3 Theme 1: The process of applying the mindfulness intervention

This theme considers the different processes that participants went through during the mindfulness intervention seven-day practice period. This theme is considered important because it reflects participants' own subjective experiences while applying the intervention and demonstrates the different stages they went through from

beginning to end. Overall, most participants reported having a positive experience while applying the mindfulness intervention. However, several mentioned facing some initial challenges like, for example, taking a while to "get into it" (Kate, L. 9). These initial challenges are described in detail in Subtheme 1.1. The majority of the participants mentioned being affected by the intensity of their emotions. Participants mentioned three main emotional states that had a profound effect on their decision to engage with the mindfulness intervention when they experienced a food craving, stress, boredom and sadness. The following extract captures the essence of how experiencing intense emotions can inhibit the application of the mindfulness intervention: "So, I think if I'm very upset (laughs), I don't think anything will stop me from having chocolate." (Ann, L. 123-125). This process is further described in Subtheme 1.2 – Blocked by intense emotions. Another challenge most participants talked about was their difficulty engaging with the mindfulness intervention in the presence of other people and/or in public. Most participants mentioned the need to close their eyes while engaging with the intervention or having to concentrate while listening to the audio. Most found this very difficult to achieve in social situations. However, several of the participants mentioned that they could, most of the time, work through this obstacle by being able to recall the mindfulness script and engage with it without having to actually listen to the four-minute audio recording provided to them by the researcher. This process is further discussed in Subtheme 1.4 -Acquired skill.

Subtheme 1.1 – Initial challenges

Several participants mentioned facing some initial challenges during the first couple of days of the seven-day practice period. One of the challenges some of the participants seemed to have in common was finding the right way for them to apply the mindfulness intervention, to "get into it" as both Catherine (L.7) and Kate (L.9) expressed it.

Catherine described:

"Emm, I'd say mixed but mostly positive. Eee, I think at the beginning I found it difficult to kind of getting into .. eee .. to kind of relax I think maybe and get into it. So, like I kind of, I get distracted quite easily anyway, so when I did first start, I didn't have my earphones in, so I could hear the children upstairs running about, I could hear my flatmates and it kind of just didn't work, I could not concentrate. Then I tried it again with earphones in and it made a massive difference and I also found it made a massive difference when I was lying down and don't know why (laughs), because I was for sure completely relaxed, well I thought I was anyway. But I would say mostly positive when I kind of got into it......" (Catherine, L. 4-19)

In this extract, Catherine clearly described her initial challenge to concentrate so that she coan apply the mindfulness intervention in an effective way for her. She explained how she gets easily distracted and has found a way to focus more by putting her earphones in, which made a huge difference for her in the application of the intervention.

Kate also described a similar challenge in the following extract:

"It's been good. I feel like I've kind of learned things along the way to make it easier or work better for me. So, in the beginning it was a bit difficult with keeping focused and like applying it emm, just personally, yeah, just with the focus to kind of just get into it but the more I did it the more it kind of become easier. I think the whole visualising for me was a bit difficult at the beginning emm, the first time I kind of tried to visualise and it was difficult for me, but it has become easier as I've gone along. The instructions generally worked. I would say I picked it up as the week's gone through as well the same with the kind of trying to stay focused in my mind." (Kate, L.4-18)

Kate explained how she found it difficult to focus at first and went on to notice that it became easier with practice. Kate also introduced facing an initial challenge with visualisation. As she described, practice also helped her with making visualisation easier.

Another initial challenge presented by some participants was the effort required to apply the mindfulness intervention. As Hillary described in the following extract:

"Yeah, during the first couple of days ...em, I had the recording on my laptop, not on my phone, and it was upstairs, and I think I just made an excuse that it was too much of an effort to go upstairs and just gave in. Yeah, I think I just felt that perhaps, I know it's not because it's a helpful thing to do and obviously it helped me but at the time, I felt it would be an inconvenience em, to go upstairs, to sit down, you know that requires effort on my part whereas I could just give in to this craving that requires no effort (laughs). But yeah, when I got into it and embraced it a bit more, I was like OK I'll actually do this...." (Hillary, L. 148-160)

Here Hillary talked about her initial sense of inconvenience and the effort required to prepare and take all necessary action before applying the intervention. An additional point made by Hillary here is the off-putting effect of this initial inconvenience and required effort and how it led her to think about simply giving in to her food craving which required no effort.

A convergence point for participants here is having to find the right, depending on the individual, physical and emotional state that facilitates the application of the mindfulness intervention.

Subtheme 1.2 – Blocked by intense emotions

The majority of the participants discussed that the intensity of their emotions was a major factor that influenced their decision to engage or not with the mindfulness intervention when they experienced a food craving. Most participants said that the more intense the emotion the less likely they were to engage with the mindfulness intervention.

Jenny described:

".... I mean sometimes, if I was extra stressed, you know, something on top of what I was already going through kind of thing, then that would be more problematic in terms of trying to prevent the craving. So, let's say I was having an extra bad day, the emotion prevailed, and I wasn't able to do the practice." (Jenny, L.65-91)

Jenny used the word "*extra*" stressed and "*extra*" bad day to convey the intensity of her emotions and went on to say that her emotion "*prevailed*" and she did not engage with the intervention on those occasions.

Kate described a similar situation:

"Emm, I would probably say again, when I felt like the emotions were too overpowering or too strong. What I'm getting from my notes is that if I just found it too overwhelming the situation that I found myself in, then it was more difficult for me to apply the practice. Which I guess is also being unfocused, yeah. Like that when I just felt sorry for myself, and I just didn't apply the practice because I think I just didn't... I felt stressed about several things, and I just didn't feel good so I just thought emm, this will make me feel better straight away, as usual, without kind of taking the process of applying it and seeing if it would help or not." (Kate, L. 125-138)

Kate talked about her emotions being *"too overpowering"*, *"too strong"* and finding herself in situations that felt *"too overwhelming"*. On those occasions, as she explained, applying the mindfulness intervention became very difficult. Instead, she described going back to the usual, familiar emotional eating behaviour that was certain to make her feel better. Resorting to the habitual, familiar behaviour of

emotional eating when experiencing intense emotions was a point made by several participants.

This point is clearly reflected in the following extract by Ann:

"... Emm, I think from the emotional barrier just for example when I have a really, really bad day I just don't see the point of not having chocolate because I'm already having a bad time, I don't need to make it extra hard. Emm, it kind of would depend on the degree of how upset I am on that day. Like the days where ...like day seven where I was feeling awful but day three it worked, perfect. So, I think if I'm very upset (laughs) I don't think anything will stop me from having chocolate." (Ann, L. 115-125)

Some participants also mentioned that the intensity of their emotions also had an impact on the effectiveness of the mindfulness intervention.

The following extract by Nadia clearly manifested this point:

"Emm, so I listened to it and I've often been snacking like at 3 – 4 o'clock, because we have dinner in like 8, and I think I'd be bored or like especially if I was studying, I get really bored when I am studying, so yeah and then I'd just sit down and then I'd put on the tape and be OK, yeah, I'm fine. But then when I had to go back and do like my studying or something that I find really boring, I'd be like no, I think I really need the biscuit to give me energy, something like that. But it did work for like the first, *initial 10 - 15 minutes but then the emotion took over, most of the time." (Nadia, L. 21-33)*

Nadia discussed how, even though she did engage with the mindfulness intervention, her intense emotion of boredom ("really boring") "took over" after only a few minutes, and she gave in to her emotionally induced food craving. Here, Nadia described a similar experience as Jane, who stated that her emotion "prevailed" and prevented her from engaging with the practice to begin with.

Similarly, Jay described:

"Yeah, so there was that one time where I was like feeling really, really kind of lonely because emm, a lot of my friends were home and you know I was the only one here at university and emm, I did listen to the audio but then it was like it worked for a few minutes but afterwards I still had that craving. I still wanted to go to like the vending machine or go somewhere and get like a chocolate bar to like keep me happy or something like that." (Jay, L.74-83)

Jay explained how his feelings of intense loneliness ("really, really lonely") undermined the effectiveness of the mindfulness intervention only a few minutes after its application and he resorted to the familiar comfort of having a "chocolate bar" to "keep me happy".

Subtheme 1.3 – In the presence of others

Most participants mentioned finding it difficult to engage with the mindfulness intervention in the presence of other people. Specifically, participants discussed not being able to listen to the audio recording when out with friends, at work or in a public space.

Ann reflected on this point in the following extract:

"Emm, I enjoyed the mindfulness practice but sometimes it was hard to listen to for example, if I was on the go or I was with my friends or if I was working, that sort of thing. But every time I was alone in my room or just walking home or I am in the library alone and I can put my headphones in, it was fine. Emm, so yeah, I enjoyed the mindfulness practice." (Ann, L. 4-11)

Catherine provided a more detailed account in the following extract:

"Well, I suppose it would be difficult ... I closed my eyes every time I've done it because otherwise, like I said, I am distracted quite easily, and if I was doing it with my eyes open then I'd be like looking around to other things and that's why I need to have my eyes closed, and I feel like I could listen to it em, if I was in public, that's not a problem but I would not be how much of it I would take in if that makes sense. Because if I am sitting there in public and I am looking around and I can see other people I would naturally look at what other people are doing and then I probably won't pay attention to what I was listening to..." (Catherine, L.166-179) Catherine explained having to close her eyes every time she listened to the audio recording which helped her concentrate. She went on to describe that otherwise she felt compelled to look around at other people when in public which distracted her from paying attention and engaging fully with the mindfulness intervention. Because of this, she found it difficult to concentrate and engage with the audio recording of the mindfulness intervention in the presence of others.

An interesting point made here by most participants was that they mentioned having found a way to overcome this obstacle. This process is presented in the following subtheme.

Subtheme 1.4 – Acquired skill

Participants described being able to recall the mindfulness script after having engaged with it a few times, without actually having to listen to it every time they experienced a food craving. They explained engaging with this process when they found themselves in situations where they felt they were unable to listen to the audio recording, such as in the presence of others or in public spaces.

Stella provided a very accurate account of this process in the following extract:

"Yeah, as long as you're not ... I mean, apart from the times, I mean with me, when I was with people it was kind two or three of us, it was very difficult for me to just kind of be like, just give me 4 minutes to ... but when I was on my own, which I was in one of the events. I think I was on a walk and that was absolutely fine for me to apply it.

But again, even when I couldn't apply it, say I was with my friends, I still did what I had learned let's say from the previous times and applied that. So, just because I may not have been actively listening to the audio, in my head I was kind of playing it through anyway." (Stella, L. 209 - 222)

Similarly, Jay said:

"Yeah, so whenever I had a craving instead of listening to the audio, I was kind of like envision the waterfall and then when they said just envisioning like the food kind of ... my food thoughts be like the waterfall and them being kind of like a process and it will go away. If I kind of took like a moment or like a few minutes just kind of envision it or like of kind of imagine it in my head, it seemed to have some sort of effect. ..." (Jay, L. 30-39)

Participants described having taken the parts of the mindfulness script that they found most helpful and repeating it without having to listen to the audio recording every time they experienced a food craving. This process seemed to produce the desire effect for them *"it did kind of helped me to stop my craving"* as Jay noted (L. 40-41). Participants mentioned finding this process most helpful in situations in which they were not able to listen to the audio recording.

3.4 Theme 2: Components at work during the mindfulness intervention
The different components of the mindfulness intervention at work for participants during the seven-day practice period are presented in this theme. Specifically, all participants mentioned that the mindfulness intervention provided them with another way to view their food related thoughts which is to view their thoughts as transient. Additionally, they all explained that the use of the waterfall metaphor facilitated this process. As Matthew noted regarding his thoughts about food, "...*they come and go like the water of the waterfall.*" (Matthew, L. 147-148). This process is further discussed in Subtheme 2.1. Most participants also described noticing an increase in their present moment awareness during the seven-day practice period. As Hillary noted: "...*have the awareness of OK, this is what I am thinking, what I am feeling*..." (Hillary, L. 108-109). Subtheme 2.2 illustrates this process in more detail.

Subtheme 2.1 – Thoughts as transient events

All participants mentioned that the mindfulness intervention presented them with a different way of viewing their thoughts about food, that is as passing events, which was facilitated by the use of the waterfall metaphor.

As Lena illustrated:

"Yeah, I think probably a combination of the part about seeing my thoughts as coming and going, as I said at the begging, and also the part about imagining stepping behind the waterfall and also the metaphor about the thoughts about the food washing away. It's like a balance between the two. Like they are working in parallel." (Lena, L. 188-195)

Matthew similarly said:

"Emm, just that I found it very helpful and especially the way it made view of my thoughts about food and realise that they are automatic and also that they come and go like the water of the waterfall..." (Matthew, L. 144-148)

Participants described imagining various types of waterfalls according to each individual's preferences.

For example, Nadia said:

"Yeah, I imagined like a typical Disney waterfall (laughs) because it said step behind the waterfall and I was like that's definitely Disney (laughs) so, yeah, so I did that and then because I was really craving having a cupcake and I imagined the cupcake coming down the waterfall and just floating away and I was OK with it, usually I'd be heartbroken, but it was fine. Also, the instructions about viewing your thoughts like coming and going helped as well in combination, I think. I am quite like a visual learner I think so, it helps when I have that sort of imagery. " (Nadia, L.49-61)

Just as Nadia conveyed here, several other participants explained that imagining their food thoughts being caried away by the waterfall facilitated the newly introduced concept of viewing their thoughts as transient events. Most participants noted that this mindfulness component facilitated the reduction of their food cravings and helped modify their emotional eating behaviour.

Subtheme 2.2 – Present moment awareness

The majority of the participants mentioned noticing an increase in their present moment awareness during the seven-day practice period which facilitated some changes in their emotional eating behaviour. As kate said, "*I feel like I'm conscious of it now*" (*Kate, L. 22*). Participants noted that this increase in their present moment awareness made them more conscious of their emotional eating behaviour and of the thoughts and triggers precipitating it.

Kate echoed this in the following extract:

"Emm, just kind of ... because I feel like I'm more conscious of what I'm doing or the kind of types of thoughts or feelings I had before doing it, that will help me, even if I don't always apply the practice or kind of sit down and close my eyes, it would help just to kind of be more aware of when I am doing it or like what triggers it." (Kate, L. 26-32)

Some participants commented that this increase in their present moment awareness facilitated a process of making their unconscious thoughts about food conscious, which seemed to give them a sense of control over their food cravings and, in turn, their emotional eating behaviour.

As Matthew explained in the following extract:

"Yeah, I've learned to have a discussion with my subconscious mind and decide to eat much less than I would normally do most of the times and consciously make the decision to eat a piece of chocolate or not." (Matthew, L. 109-113)

Most participants discussed these two components as working together on most occasions. Describing having the present moment awareness first, followed by viewing their food thoughts as transcient events, that was often facilitated by the use of the waterfall metaphor.

Lena exemplified this in the following extract:

".... even if you are having a food craving, having this time to sort of think but I am not hungry, it's not a necessity and then being able to say, well it's just going to carry on, it will wash away, I am not hungry, it's not a meal, I am doing it emotionally. I just found that extremely helpful, really. So, just having that ability to sort of make the connection, sort of speak and have that sort of realisation, I am doing it because I am stressed, I am not doing it because my body needs the food (laughs). I found it a lot more helpful than I thought I was going to ... " (Lena, L. 203-215)

3.5 Theme 3: Effects of the mindfulness intervention

All participants reported experiencing several effects as a direct result of the brief mindfulness intervention during the seven-day practice period. All participants mentioned either experiencing a reduction in their food cravings and/or making a

different choice afterwards. Some participants also mentioned that the brief mindfulness intervention had a hindering effect on their usual impulsive eating behaviour. They went on to mention having a sense of empowerment and taking control of their food cravings as a result of the brief mindfulness intervention. Additionally, most participants described the brief mindfulness intervention as having the dual effect of both emotional regulation and food craving reduction. These effects are best described in the following two subthemes.

Subtheme 3.1 – Food cravings

All participants talked about the mindfulness intervention having some effect on their food cravings and the way they responded to them. The majority of the participants described their food cravings as being considerably reduced after the application of the mindfulness intervention. Participants additionally mentioned making a different choice regarding consumption, either consuming less or making a healthier choice, after applying the intervention.

These points were echoed in the following extracts:

"Well, yeah, I guess I didn't mention that sometimes I did eat after using the practice but something healthier. For example, I was craving a biscuit and ate an apple instead. Also, sometimes I'd be studying and being bored and felt I needed a break and normally I would go downstairs and cook something or have a snack but after listening to the mindfulness practice I would think OK I am still bored but there are other activities I could do like drawing or whatever, like I'd be fine doing that. So, yeah it helped in that sort of sense." (Nadia, L. 98 – 109)

Nadia here explained that most of the times that she experienced a food craving and applied the practice, her food craving was reduced, and she went on to say that even at the times when she did follow through with her food craving by having something to eat, she then made a healthier choice.

Ann made a similar point:

"... Also, on day four ... day four was just a horrible day like the afternoon in particular, I had a very emotionally draining and tiring seminar, people were fighting, and I did not like it, I wanted to lie in bed and eat chocolates, then I listened to the mindfulness practice. I still ate snickers but only one bar which is way less than what I would usually eat." (Ann, L. 54-61)

Several participants found that the process of not following through with a food craving was mainly facilitated by viewing their thoughts about food as transcient events.

This is illustrated by the following extracts by Hillary, Catherine and Lena:

"So, every time I listened to it, I then didn't give in to the craving which is good. Em, and I acknowledged that like OK this is a thought event and then I was like OK if it's a thought event that event I would like to have past so let's give you something else to keep you busy which is nice to be (laughs). [...] Then, at the very end of the week when, you know, I was still having these cravings but perhaps I didn't use the mindfulness practice em in terms of listening to the audio then but I thought about what the audio had said and like the fact that there is an event emm and that was enough for me to not give into that craving which is really good." (Hillary, L. 68-85)

"... So, say if I was at uni in the library, for example, and I was feeling stressed, I wouldn't feel comfortable sitting in public doing that, like listening to it and doing it emm, not that it would be obvious but I just wouldn't be able to relax. So, I liked the wording of it and I liked the idea of you know, that these thoughts about food emm, you know, they're going to pass, kind of thing. And like I said, I've used that generally like during the day anyway, and I think that really helped. And kind of remember we don't have to have the bar of chocolate because this is going to pass, that craving is going to pass. So, that's what I found useful." (Catherine, L.134-148)

"Whilst my mind frame before was I am stressed, I need to eat for that to then go, to make the stress better. But then, listening to it and thinking oh, it can just go. It was sort of calming and it did reduce the cravings from there." (Lena, L. 55-59)

Some of the participants also mentioned that the mindfulness intervention had a hindering effect on their impulsive eating behaviour which usually followed their food cravings.

As Catherine described:

"Emm, maybe it's quite similar to what I said to you I felt quite stress. I am a big stress eater, I am a big stress eater or a big like if I am feeling a bit sad. I eat a lot then or I crave sugary things. [...]. Emm, and normally after my therapy session emm, I would have liked to have plenty of chocolate and then I kind of stopped and then I kind of done the mindfulness and then before I came back into the living room because I was doing therapy over Skype. Em, and rather than then going straight to the cupboard, there were times when I just had a banana, or another time I drunk some water and then like waiting for dinner because it's more like in the afternoon that I feel stressed rather than the morning. So, afternoon, evening that's when I was using it the most. That was when I was generally listening to the audio. But I found difference in behaviours. Like I wasn't just like impulsively going to the cupboard, I had managed to wait (laughs) rather than grabbing food. Because that's how my behaviour around food was." (Catherine, L. 80-105)

Jay talked about a similar experience in the following extract:

"... because as well, as I said before, it really has trained, well kind of trained, my mentality or my awareness of my food cravings. So, not only has that built more resilience to me so that kind of more self-conscious to not fall into that food craving or when I do, I do realise that I am craving something even if there are sometimes when I am out and about, I do end up like just forgetting that I am eating, well not forgetting but kind of not realising that I fell into my food craving. [...] Emm, so I will probably use it again outside of the study because it might help me stop at some point or be able to build something so I can, you know... Because ...it's already kind of

doing that, like especially when I'm out for like lunch or dinner, I am more selfconsciously aware ok, so I am not going to have the extra side or the extra dessert just because I am craving it because I had a bad day..." (Jay, L. 224-245)

Here, Jay additionally described his increased present moment awareness facilitating the reduction of the impulsive eating behaviour that usually followed his food cravings.

Several participants mentioned having gained a sense of empowerment and control over their food cravings as a result of the mindfulness intervention. Participants noted a link between their increased present moment awareness and learning to view their thoughts as transcient events, and their newly found sense of empowerment and ability to take control of their food cravings.

The following extracts by Lena, Hillary and Matthew resonated this point clearly: "… When it is saying to imagine like stepping behind the waterfall, like imagining it going past, it was almost like a mental but also feeling like your shoulders relax as well …like being able to have that mindfulness to reconsider that it is sort of an emotion leading and it was almost like having that control of using the mindfulness, like you can control the cravings through that, if it makes sense? (laughing)." (Lena, L. 74-82)

"... To be like, to recentre yourself, bring yourself to the present and I think ...I always close my eyes which is really helpful emm, because it helps me focus a bit emm, and then yeah, just the ability to be like ... have the awareness of OK this is what I am thinking, what I am feeling and then that that's going to pass as an event and then there's going to be another event and another event and another event and you can control one of those events by going out and doing something now emm, that was really positive." (Hillary, L. 103-114)

"Emm, I really liked the metaphor with the waterfall in the exercise which made me realise that literally our thoughts come and go. So, every feeling, every sensation there is it's just temporary, it's just there and it'll go, and we can control our thoughts if we focus on them and we can to an extent, have an impact on how we feel and I was successfully able to do that as the days went on and the more I practiced it emm, with the waterfall exactly, what I am experiencing, what I am feeling it's just at present state and it will pass." (Matthew, L. 49-60)

Several participants experienced a combination of all the above-mentioned effects. As Catherine stated, ".... So, I would say the practice helped me to reduce my cravings but also change my food choices and stopped me from being so impulsive..." (Catherine, L. 277-279).

Subtheme 3.2 – Dual effect

Several participants mentioned that the mindfulness intervention had an effect on both their emotions and their food cravings. Specifically, participants described the mindfulness intervention as helping them regulate their emotions and reduce their food cravings. This effect was clearly illustrated in the following extract by Stella:

"... It was very interesting as well because I've never kind of thought about doing it for food, it was always something I just assumed it was when you're stressed, when you're angry, whatever it might be. But then everything is linked, isn't it? So, I think the idea of being able to stop that thought about food which is then obviously closely linked to your emotions. It all kind of worked in connection with each other. I felt as well that, say I was stressed and then I've got the food craving and then I do the mindfulness. I felt the stress diminish as well as the food craving. So, like I said, it helped just as a general mindfulness practice as well as being specific to food. I think that was good, that was helpful. I enjoyed that. And the majority of times that I used it, it actually diminished it all together so, the majority of the time it wasn't even that I wanted the food. The thought was gone." (Stella, L. 303-322)

Here, Stella mentioned that she had never thought that mindfulness could be applied to food cravings but rather always believed it was something helpful with one's emotional state. She went on to make a connection between her emotional state and her food cravings and noticed that after applying the mindfulness intervention, her stress levels as well as her food cravings, diminished.

Jay discussed a similar experience:

"Yeah, so when it came to more kind of like stressful, kind of like the workload kind of being too much for me and was like oh ok maybe I need to take a breather or like you know a break emm, I listened to the audio because I was craving like a snack or something you know to just kind of drowning my sorrow (laughs), my stress and instead it kind of helped me kind of like relax and kind of not only get rid of my craving but kind of made me like, helped me realise that ok I am like getting way too like stressed right now, this is because the breathing exercises kind of calmed me down and helped me kind of like refocus in a sense." (Jay, L. 86-99)

Additionally, Jay explained that his dual effect was facilitated by an increase in his present moment awareness regarding his elevated stress levels, and he made the connection with his food cravings.

Furthermore, Matthew described this dual effect of the mindfulness intervention as being facilitated by viewing his thoughts as transient events:

"Emm, just that I found it very helpful and especially the way it made view of my thoughts about food and realise that they are automatic and also that they come and go like the water of the waterfall. Also, I found the relaxation part very useful especially because my eating is connected to emotions like stress and that really helped me to relax and reduce my food thoughts. ..." (Matthew, L. 144-152)

3.6 Theme 4: Life after

This final theme considers the participants' thoughts regarding continuing with the mindfulness practice beyond the end of this study. Most participants expressed their

intention to continue using the mindfulness intervention after the end of the seven-day practice period.

As Ann said, "... So, yeah, in general I found it helpful, and I would like to continue using it. I am an emotional eater, food just gives me comfort so, I think it will be helpful to continue using it." (Ann, L. 145-149). Jay made a similar point, "Emm, so I will probably use it again outside of the study because it might help me stop at some point or be able to build something so I can, you know..." (Jay, L. 236-239).

Both participants conveyed here their intention to continue with the mindfulness intervention after the end of this study and expressed their belief that it can help them reduce their food cravings and ameliorate their emotional eating behaviour.

Subtheme 4.1 – Transferable skill

Several participants perceived the mindfulness intervention as a skill that could be transferred to other situations in their life, such as stress inducing events. Most participants described the mindfulness components of viewing their thoughts as transient events and increased present moment awareness as skills that they could transfer to other situations in their everyday lives. These components were discussed in detail in Theme 2: Components at work during the mindfulness intervention.

The following extracts illustrate this point:

"Emm, just realising that OK you're thinking about this certain thing now but, emm, you know this is an event; the thought will come and the thought will go. Emm, and I didn't just apply that to food as well, I applied that to other scenarios, emm, other things that I was thinking that were perhaps slightly stressful..." (Hillary, L. 16-22)

Here Hillary clearly expressed that she applied that component of viewing her thoughts as transient events to other scenarios apart from food cravings, such as stressful events.

Hillary went on to provide a more detailed account of this:

"Well, perhaps I wouldn't continue with the audio recording but with the way of thinking. Especially, more than with cravings like if I am in a stressful situation, I think just taking that time to be like OK, even if it's not a thought, even if you're experiencing something that perhaps isn't very nice and it can be like OK this is an event, this is going to pass, you know and taking the time to have a deep breath and awareness about it and be like OK this is happening but .. to bring yourself to the present I think is really important. " (Hillary, L. 157-168)

Hillary went on to say that even if she would not use the audio recording every time, she felt that she could apply the components of viewing her thoughts as passing events and present moment awareness in other events that could induce negative emotions. Ann expressed a similar thought in the following extract:

"Yeah, I guess that the parts of the practice I found most helpful like the waterfall and sitting on the chair and feeling your body could also apply to other situations like if you feel stressed or if you're upset, if you're nervous that sort of thing. So, kind of thinking about them in the same way as going with the water. So, yeah, in general I found it helpful, and I would like to continue using it..." (Ann, L. 139-147)

Here Ann conveyed her belief that the metaphor of the waterfall facilitated viewing her thoughts as passing, "*thinking about them in the same way as going with the water*" and present moment awareness, "*sitting on the chair and feeling your body*", are skills that could be transferred to other stressfull situations.

Kate also expressed a similar thought in the following extract:

"Emm, yeah, it's like even if I am feeling stressed for example and I know that actually it will eventually go sometimes it's kind of good to think about the process of how all emotions come and go. That you can't always be happy, you're not always sad, emotions do come and go but just to kind of thinking about it more because if you are in a negative emotion sometimes it feels like you're just stuck in it emm, but it just kind of makes you think about it more as that continues process..." (Kate, L. 163-173)

Subtheme 4.2 – Incorporate mindfulness into daily life

Some participants found it easy to incorporate the mindfulness intervention into their daily lives by *"taking the words in with me"*, as Catherine said in the following extract:

"...But in terms of, you know, taking the words in with me, I've been able to incorporate that in my daily life..." (Catherine, L. 179-182)

Matthew made a similar argument in the following extract:

"Emm, that's a good question ... at the moment I cannot think of anything basically because as I said, after practising it for a few days, I don't even need the recording anymore, it's in my head. Perhaps, if I was in a very busy and loud place, with many people around, that might make it more difficult. Still, I am good at concentrating and turning inwards so, it depends on the person, I guess." (Matthew, L. 133-141)

Other participants discussed the possible difficulty of incorporating the mindfulness practice into their daily lives and busy schedules, especially when in public, with other people or at work. Some participants presented a few resourceful ways that could help them to incorporate mindfulness into their daily lives such as:

"Well, it would be difficult to be able to sit down and listen to the 4-minute audio and point, I think that perhaps using just a phrase of it...I think the most useful one for me would be let your thought go." (Stella, L. 295-299) and

"...Perhaps if I could have a physical reminder of it something small maybe a keychain or a key that reminds me of the mindfulness practice. Maybe something like

that, a line yard, you know, anything small, a small figuring something that's portable and you just hold it in your hand. Something that people won't notice in public." (Ann, L.130-136)

Some participants went on to make several suggestions regarding adding personal touches to the mindfulness intervention to fit each individual's needs and enhance its' effectiveness for them.

Lena explained in the following extract that she is not very imaginative, and thus suggested adding sound to the audio recording, which she believed would help her with the process of imagining the waterfall.

"Well, the only other one but I don't know if it's more of a preferable thing, I am not a very good, imaginative person, it could be like a background noise of a waterfall to help the information because I know personally, I am not a very imaginative person so, that would help as well." (Lena, L.120-126)

Kate made a similar suggestion for a visual aid:

"...yesterday I applied the practice but instead of closing my eyes to visualise the waterfall, I went into YouTube and just got a video of a waterfall instead just to see if that made a difference in me finding it easier to just look at the waterfall rather than closing my eyes and visualising it which I think it did as well...." (Kate, L. 59-66)

Some participants also noted the importance for them of a relaxation part of the audio recording, because their emotional eating behaviour is strongly connected to emotions such as stress and suggested adding a relaxation part to the mindfulness intervention.

Matthew echoed this point in the following extract:

"...Also, I found the relaxation part very useful especially because my eating is connected to emotions like stress and that really helped me to relax and reduce my food thoughts. I think more of that part would be even more helpful for me." (Matthew, L. 148-153)

3.7 Summary

This study aimed to explore the experience of participants who self-identify as emotionally eating when applying a brief mindfulness intervention in response to their food cravings for a practice period of seven days. This study attempted to identify the specific components and processes present during the mindfulness intervention and the possible factors that might enhance or hinder its application.

The above analysis revealed that the participants had an overall positive experience while applying the brief mindfulness intervention and expressed the intention to continue using it beyond this study. Some participants went through a process of facing some initial challenges during the first couple of days of the practice period as described by Kate (L.9) and Catherine (L.7), to "get into it". All participants talked about the intensity of their emotions as a major factor influencing their decision to engage in the intervention when experiencing a food craving. Several also mentioned the presence of others as a hindering factor in their engagement with the brief mindfulness intervention. At this point, several participants presented a possible solution to this challenge. They described having become so familiar with the audio recording after a few times of practice that they were able to recall it without having to actually listen to it which allowed them to engage with the intervention while in the presence of others or in a public place. All participants mentioned the mindfulness components of decentering (viewing thoughts as transient events), and present moment awareness to be at work during the seven-day practice period. All participants discussed the various effects that the brief mindfulness intervention had on their food cravings and the way they responded to them. Some of these effects were food cravings reduction, making a different choice regarding food consumption and hindering their impulsive eating behaviour following a food craving. Additionally, several participants mentioned that the brief mindfulness intervention had an effect on both their emotional state and their food cravings. Numerous participants also discussed having gained a sense of empowerment and control over their food cravings as a result of the mindfulness intervention, facilitated by the components of increased present moment awareness and decentering. The majority of the participants expressed their intention to continue using the brief mindfulness intervention after the end of the study. Several mentioned that they believed they had acquired the skills of viewing their thoughts as passing events and present moment awareness which they perceived as transferable skills that they could apply to other occasions in their lives such as events inducing difficult emotions. Finally, a few

participants made suggestions about making minor modifications to the audio recording to fit their individual needs such as adding audio or visual aids to the waterfall metaphor to facilitate visualisation.

Chapter 4

Discussion

4.1 Overview

This chapter discusses the key findings from the analysis of data collected under this study. These findings are organised around contextual themes derived from the research aims of this study, thus, providing answers to the research question. The findings are discussed in a wider context of the current literature, and opportunities for future research are suggested. The chapter also presents the implications of the research findings for counselling psychology practice, followed by reflections on the limitations and impact of the study.

4.2 Research Aims and Summary of Results

This study aimed to explore the experience of participants applying a brief mindfulness intervention in response to food cravings for people engaging in emotional eating. To achieve this goal, the study had three research aims: to explore the effects of applying a brief mindfulness intervention in response to food cravings, to explore which components of the brief mindfulness intervention were at work during the intervention, and to explore potential issues that might prevent participants from engaging with the brief mindfulness intervention every time they experienced a food craving. The findings from this study suggest that the brief mindfulness intervention had positive effects on food cravings for people engaging in emotional eating.

4.3 Discussion of the Key Findings from the Analysis in Context

This section discusses the key findings connected to the research aims of this study in relation to the current literature. This section will also focus on new findings that contribute to and extend current research and literature on the topic of brief mindfulness interventions for food cravings in the context of emotional eating.

4.3.1 Effects of the brief mindfulness intervention.

Food cravings. The majority of the participants in the study reported that the application of the brief mindfulness intervention had reduced their food cravings on most occasions. This finding aligns with evidence from the research literature that demonstrated the effectiveness of brief mindfulness interventions in reducing food cravings (e.g., Jenkins & Tapper, 2014; Lacaille et al., 2014; Wilson et al., 2021). For example, Lacaille et al. (2014) used five-minute audio recordings to instruct participants to use three different mindfulness techniques in response to their chocolate cravings. Results showed that brief awareness and disidentification instructions had the greatest reduction in chocolate cravings. The results of this study also contribute to the findings from previous studies showing that mindfulness is effective in decreasing emotional eating behaviours (e.g., Lattimore, 2020; Leahey et al., 2008; Levoy et., 2017; Mantzios & Wilson, 2015; Watford et al., 2019). For example, Sala et al.'s (2020) meta-analysis exploring the association between

mindfulness and eating disorder psychopathology found that mindfulness was negatively associated with eating disorder psychopathology with the strongest links found in binge eating, emotional/external eating and body dissatisfaction. Katterman et al.'s, (2014) systematic review examined mindfulness-based approaches as an intervention for disordered eating. The results indicated that mindfulness is an effective intervention for reducing binge eating and emotional eating in populations that engage in this type of behaviour (Katterman et al., 2014). Pidgeon et al.'s (2013) study also found that mindfulness had an inverse relationship with emotional eating. The findings from the current study, therefore, support existing research evidence that mindfulness interventions are effective for reducing food cravings and emotional eating. The majority of the participants described this effect as primarily facilitated by the mindfulness components of decentering and present moment awareness. This process will be further analysed later in this section.

Another important effect of the brief mindfulness intervention on food cravings found in the study was the type of response to food cravings undertaken by the participants. The mindfulness intervention led to a response/action by the participants. After engaging with the brief mindfulness intervention, the response undertaken by the majority of participants was either to consume less food or to make a healthier choice. Participants described this effect as facilitated by increasing their present moment awareness and viewing their thoughts as passing. Specifically, participants described the brief mindfulness intervention as often having a hindering effect on their usual impulsive response to their food cravings which seemed to allow them the time to make a different, often healthier, choice of consumption. This finding is in line with similar results from previous studies showing that mindfulness

training can have an effect on impulsivity and food choice. For example, Papies et al., (2012) provided an overview of three studies they conducted in which they delivered brief mindfulness instructions where participants were asked to observe their reactions to stimuli as mere transient events. The authors reported that they found that across all three experiments, the brief mindfulness intervention was effective in reducing spontaneous reactions to attractive food and this effect was maintained over a distraction period of five minutes. These findings suggest that brief mindfulness interventions may help control impulsive responses (Papies et al., 2012). Additionally, Marchiori and Papies (2014) found that a brief mindfulness-based intervention can increase sensitivity to internal cues of hunger resulting in healthier eating behaviours. Similarly, Hendrickson and Rasmussen (2017) tested how a brief mindful-eating training would affect impulsive food choice patterns compared with baseline measures. Results from this study suggest that mindfulness training reduces impulsivity resulting in more self-controlled food choices.

Dual effect. The analysis of the current data found that, for most participants, the brief mindfulness intervention had a dual effect. The majority of the participants made a connection between their emotional state and their food cravings. They reported that the intervention effected both their emotions (specifically, regulation of emotions) and the reduction of food cravings. Emotional regulation was mostly reported for stress; mindfulness training reduced the presence of both stress and food cravings. Even though stress reduction was not an aim of this intervention, the findings suggest that the brief mindfulness intervention, which focused on the reduction of food cravings, also led to stress reduction.

All the participants in this study have self-identified as eating emotionally. As stated in the literature, emotional eating occurs in reaction to emotional cues, often as a way to manage negative emotions and psychological distress, including depression, anxiety, stress, anger, and loneliness (e.g., Kandiah et al., 2006; Konttinen et al., 2010). This finding is important as it adds to previous literature that has associated food cravings with emotional eating (Blau et al., 2018; El Archi et al., 2019; Jarosz et al., 2007; Penaforte et al., 2019; Verzijl et al., 2018) and suggests that a link exists between the reduction of food cravings and emotional regulation for people engaging in emotional eating. However, since the specific brief mindfulness intervention used for this study did not include any instructions regarding emotional regulation and/or relaxation, the mechanisms through which this effect was achieved is unclear.

This finding is in line with previous qualitative studies in which participants reported the effect of emotion regulation and/or stress reduction as a result of mindfulness practice (e.g., Monshat et al., 2013; Proulx, 2008; Schwind et al., 2017). For example, Schwind et al., (2017) conducted a qualitative pilot study to explore how university students experience brief instructor-guided mindfulness practice, specifically looking at their stress, anxiety, and wellbeing. Participants engaged in brief mindfulness practices at the beginning and end of classes for an eight-week period. They were also asked to practise at home four or five times a week and to keep a record of their experiences. Participants reported finding the mindfulness practice relaxing, helping them slow down the pace and decreasing their anxiety and stress. The brief guided mindfulness practices used for this study were mindful breathing and lovingkindness meditation, which are aspects of mindfulness that have shown results in decreasing

students' anxiety and stress and increasing compassion for themselves and others (Schwind et al., 2017).

A potential theoretical explanation for the dual effect that participants in this study discussed could be that mindfulness has broad benefits irrespective of the specific domain for which it is undertaken, and that mindfulness skills have general applicability to all aspects of life. As defined in the literature, mindfulness is the awareness that comes from paying purposeful, non-judgemental attention to the present experience (Kabat-Zinn, 2003). The two components of mindfulness proposed by Bishop et al. (2004) are self-regulation of attention to the present moment and openness and acceptance of the present experience. Although the component of intention is identified in mindfulness (the idea that there is usually a specific reason for practising mindfulness – such as reduction of food cravings in this study) (Shapiro et al., 2006), attention to the present moment can comprise any aspect of the human experience. Decentering, that is, viewing one's thoughts and feelings as transient events that are separate from oneself and not necessarily a reflection of reality, also occurs when one practises mindfulness (Bishop et al., 2004; Shapiro et al., 2006). These mindfulness strategies can be directed towards different types of events, for example, stress-inducing, as several participants also mentioned during their interviews. Perhaps this transferability of mindfulness skills may partly explain the dual effect of the brief mindfulness intervention on both stress and food cravings. Additional research could explore the specific mechanisms and processes involved during this brief mindfulness intervention in response to food cravings, which led to both a reduction in food cravings and emotion regulation for people engaging in emotional eating.

4.3.2 Mechanisms of the brief mindfulness intervention

One of the premises for the current study was that, while several studies provide evidence to indicate the effectiveness of brief mindfulness interventions in managing food cravings, it is still unclear which specific components are responsible for the reduction of food cravings. As discussed in the literature, the three basic skills typically employed in mindfulness interventions are present moment awareness, acceptance, and decentering (e.g., Lacaille et al., 2014; Tapper, 2018). The following section will discuss the brief mindfulness components that seemed to have facilitated change during this intervention, according to the participants.

Viewing thoughts as transient events. The analysis of participants' interviews indicated that the brief mindfulness intervention provided them with another way to view their food-related thoughts which is to view their thoughts as passing. The literature describes this process or skill as decentering (Bishop et al., 2004; Shapiro et al., 2006). The EI theory of desire can be used to draw a connection between this component of mindfulness and its effect, which is reduced food craving among study participants. As stated in the literature, EI theory defines craving as a process in which information is sought from memory and manipulated in working memory to produce vivid imagery associated with the craved object and its acquisition (Kavanagh et al., 2005). Since craving is sustained and enhanced by cognitive elaboration, its inhibition or disruption will also inhibit or reduce the craving episode (Kavanagh et al., 2005; May et al., 2012; Tapper, 2018). By viewing their thoughts as transient events, the participants' cognitive elaboration is probably

disrupted, and the working memory is not manipulated to produce images to sustain food cravings.

This finding is in line with results from previous research (e.g., Papies et al., 2012; Papies et al., 2015; Schumacher et al., 2017; Tatar et al., 2021; Wilson et al., 2021). For example, Papies et al. (2016) investigated the effects of decentering as a mindfulness mechanism for managing food cravings. Results from this study showed that a stronger magnitude of decentering was associated with reduced food cravings. Results from a study by Wilson et al. (2021), which compared the impacts of visualisation versus decentering on cravings, provided ongoing support for the EI theory, while also indicating that mindfulness-based decentering strategies can be beneficial for both the prevention and reduction of cravings.

Increased present moment awareness. The analysis of the results indicated an increase in present moment awareness among the participants due to the intervention. Present moment awareness is described in the literature as directing attention to present moment experience (e.g., Shapiro et al., 2006; Tapper, 2018). In the context of food cravings for people engaging in emotional eating, the participants described that an increase in their present moment awareness meant that they were more aware of its triggers, more able to distinguish between food cravings due to hunger and emotionally induced ones and therefore, better able to avoid acting on them and to find alternative actions. However, the participants in the current study did not explicitly discuss present moment awareness as a stand-alone component but rather as part of a process that combined the two mindfulness strategies of awareness and decentering.

A combination of mindfulness components (Present moment awareness and decentering) is effective for reducing food cravings. The findings from this study suggested that a combination of both components is effective for reducing food cravings. The majority of participants discussed these two components as working together in most instances. They described first experiencing an increase in their present moment awareness, for example, noticing the appearance of food-related thoughts, this was then followed by viewing their food related thoughts as transient events which was described as often being facilitated by the use of the waterfall metaphor. The combination of present moment awareness and decentering could be more effective in the reduction of food cravings for people engaging in emotional eating as it might facilitate participants to choose to respond to their food craving at an earlier stage and thus prevent the development of intense cravings. This inference adds to the study by Wilson et al. (2021) which compared the impacts of visualisation versus decentering on cravings. These researchers noted that targeting cravings at an earlier stage in their development might be a more effective strategy and concluded that mindfulness-based decentering strategies can be beneficial for both the prevention and reduction of cravings.

Therefore, a conclusion could be drawn that the combination of these two mindfulness components is probably more effective in reducing food cravings for people engaging in emotional eating behaviours. This finding is in line with the results from Lacaille et al.'s (2014) quantitative intervention study comparing the effects of different combinations of three different mindfulness techniques (awareness, acceptance and disidentification) on chocolate cravings. These results showed that the awareness and disidentification intervention had the greater reduction

in chocolate cravings offering further support for the differential effects of various mindfulness skills, namely present moment awareness and disidentification in reducing food cravings.

As previously mentioned, participants did not explicitly discuss present moment awareness as a stand-alone component but rather in combination with decentering, which therefore makes it difficult to draw any inferences about the effectiveness of awareness alone for the reduction of food cravings for the participants of this study. Some scholars have examined awareness alone and found it to have some benefits for the reduction of food cravings (e.g., Kristeller et al., 2014). However, the evidence regarding the impact of awareness alone for reducing food craving is not consistent. For instance, May et al.'s (2010) study on whether awareness of somatic sensations would reduce food cravings did not find any difference between the control and the experimental group.

In contrast, the evidence on the impact of decentering alone in reducing food cravings appears to be consistent. Many researchers have studied the effects of decentering alone and found it to have efficacy as a mechanism for reducing cravings (e. g., Papies et al., 2012; Papies et al., 2015; Schumacher et al., 2018; Wilson, 2021). For example, Papies et al. (2016) found decentering to be associated with positive self-reported effects on food cravings for meditators.

From the findings of this study and the literature, could be inferred that present moment awareness and decentering respectively, have benefits for reducing craving. However, it is not very clear from the findings of this study nor the literature whether the use of awareness as a stand-alone mindfulness mechanism is effective for reducing food cravings. This lack of conclusiveness regarding the effect of present moment awareness on food cravings for people engaging in emotional eating as a stand-alone mechanism creates an opportunity for future research. Dobkin et al. (2012) suggested that mindfulness training could possibly bring into awareness and highlight any negative aspects or emotional experiences of a person's life that they have previously been guarded against. Thus, an increase in present moment awareness alone could potentially even be unhelpful or harmful for people who engage in emotional eating. In other words, an increase in awareness of their difficulties without having a healthy coping or regulation strategy, such as decentering (e.g., Lomas et al., 2015) could result in their potentially being immersed in the experience and engaging with their default coping strategy of eating. This is speculation that could be investigated with further studies.

A cascade of responses. The findings from the current study seem to suggest that there may be a cascade of responses in the development of reduced food cravings for people engaging in emotional eating in response to the brief mindfulness intervention. In the first step of the cascade, present moment awareness is an essential process and skill in mindfulness. Representing the next step of the cascade, the addition of decentering to present moment awareness which is often facilitated by the use of the waterfall metaphor, as previously mentioned. Representing the final step in the cascade, the combination of present moment awareness and decentering leads to empowerment and a sense of control. The empowered individual implements a response to food cravings such as reduced food consumption or healthy food choices. The presence and specific aspects of this step process and its contribution to bringing

about change in food cravings and emotional eating behaviour could be explored further through future research.

4.3.3 Impacts on life/Life after.

During the analysis of the participants' interviews, data was collected on life after the intervention, going beyond a narrow focus on the impact on food cravings alone. As noted in the literature, numerous studies have indicated the effectiveness of brief mindfulness interventions in the reduction of food cravings (e.g., Papies, 2012; Keesman et al., 2019; Schumacher et al., 2018). Evidence from the current study provide support to the findings from other research that applying brief mindfulness interventions can be beneficial for addressing problematic eating behaviours.

Emotional eating and food cravings occur within the broader context of the individual's life. Therefore, it can be expected that any knowledge or skill gained from any intervention will also have some influence on other aspects of life or applicability for life. This aspect of the enquiry focused on attempting to understand how the benefits of the intervention would be sustained; whether the participants intended to continue using mindfulness practice, and the wider applications for mindfulness intervention in the lives of those who would benefit from it.

Results from the study suggested that mindfulness is perceived as a skill that can be transferred to other situations in participants' lives such as stressful experiences and events. The mindfulness mechanisms of viewing one's thoughts as transient mental events and increased present moment awareness were described as skills that could be transferred to other situations in everyday life. Most participants noted, for example, that these skills could be applied during events and situations that induce negative emotions. This finding is in line with the results from the qualitative study by Tatar et al., (2021) which investigated how non-meditators learn and apply brief mindfulness instructions in food cravings. Some participants in this study mentioned the possibility of applying the mindfulness instructions in other domains in life beyond food cravings such as stressful situations.

Additionally, most of the participants in the study expressed their intention to continue using the brief mindfulness intervention after the end of the seven-day research period. The main reasons offered for this decision were the belief that the brief mindfulness intervention was effective for reducing cravings, and its continuous practice could help participants reduce their food cravings and ameliorate their emotional eating behaviour going forward.

Participants also expressed the intention of incorporating aspects of the mindfulness intervention into their daily lives. This stated intention is significant, as it indicates the intention to use mindfulness practice not just as a tool to address food cravings, but also as a form of general wellness behaviour. In terms of ease of use, some participants described the brief mindfulness intervention as being easy to incorporate into their daily lives because key catchphrases within the intervention were easy to memorise and there was no need to use recorded prompts. Some participants, however, thought that incorporating mindfulness practice into their daily lives and busy schedules would be challenging. Specific barriers to incorporating the

mindfulness practice into daily life were identified as the presence of other people at workplaces and being in public.

Most previous research studies on food cravings did not explicitly examine whether recipients of a brief mindfulness intervention intended to incorporate the practice into their daily lives. This could be due to the quantitative and/or experimental nature of these studies or their focus on the relationship between the intervention and the issue in question such as food cravings (e.g., Jenkins & Tapper, 2014; Lacaille et al., 2014; Marchiory & Papies, 2015; Schumacher et al., 2018). However, research evidence provided by previous studies suggests that recipients might adopt mindfulness practice as part of their lifestyles given its effectiveness in enhancing overall psychological well-being. For example, as reported in the literature, Watford et al.'s (2019) study investigated the link between mindfulness and less frequent eating in response to various behavioural eating cues such as general negative emotions, boredom, and positive emotions. The researchers sought to determine whether the relationship between mindfulness and the various emotional eating types was mediated by emotion regulation and psychological well-being. The findings of the study were that both emotion regulation and psychological well-being mediated the relationship between mindfulness and eating in response to boredom and negative events. The researchers concluded that mindfulness interventions may enhance adaptive emotion regulation and psychological well-being leading to reduced consumption of food (Watford et al., 2019). This finding supports the premise that beyond just practising mindfulness intervention for a specific difficulty, recipients of the intervention can be motivated to incorporate it into their daily lives as a means of achieving psychological well-being. A longitudinal study could explore whether the

participants intent to incorporate a brief mindfulness intervention into their daily lives was manifested as well as its long-term effects and the possible barriers faced by the participants.

The analysis of the data from this study also indicated that the participants planned to add personal touches to the brief mindfulness intervention, to fit their unique needs and preferences as individuals and enhance the effectiveness of the intervention for them. Some personal touches mentioned included adding sound to the audio recording (background noise of a waterfall to help the participant use the waterfall metaphor in their mindfulness practice), use of visual aids (such as using a video of a waterfall instead of mental visualising which may be challenging to do in periods of stress, as some participants mentioned), and selective use of the audio recording of the mindfulness prompts such as concentrating on parts of the recording that focus on viewing thoughts as passing.

This aspect of the study represents a new finding as most studies on brief mindfulness interventions focus on the effect of the intervention itself but not on the implications of the acquired skill for future living. This study thus contributes to the research on brief mindfulness interventions by identifying ways in which mindfulness skills once acquired, might continue to affect the life of the individual.

4.3.4 Issues that prevent mindfulness intervention during a food craving

The efficacy of brief mindfulness interventions on the reduction of food cravings has already been explored through previous studies. Research evidence shows that brief mindfulness inductions of about three to fifteen minutes such as the one used in the current study can be effective in reducing food cravings (Jenkins & Tapper, 2014; Keesman et al., 2019; Papies et al., 2012; Marchiori & Papies, 2015; Lacaille et al., 2014; Shumacher et al., 2018; Tatar et al., 2021; Wilson et al., 2021). The efficacy of this style of mindfulness intervention has been examined mainly through quantitative and experimental studies. For instance, Shumacher et al. (2018) explored the effect of brief mindfulness-based techniques on naturalistic food cravings. Participants underwent a seven-day baseline period followed by a seven-day intervention period. During the intervention period, participants listened to a three-minute audio clip every time they experienced a food craving and completed an online self-report diary. The audio clip contained instructions in accordance with their randomly assigned experimental conditions, cognitive defusion or guided imagery. Participants in the control group simply recorded their food cravings like in the baseline period. The findings from this study showed that both techniques reduced food craving frequency, intensity, and consumption. The results from this study suggest that a brief mindfulness intervention can have positive effects on food cravings. However, besides the naturalistic nature of this study, it did not examine the factors that prevented participants from engaging with the intervention each time they experienced a food craving.

Qualitative studies on mindfulness interventions and problematic eating behaviours are sparse and many did not specifically examine food cravings in emotional eating. For instance, Proulx's (2008) qualitative study on mindfulness intervention for women who had been diagnosed with bulimia nervosa found that the participants developed better inner relationships with themselves leading to improved acceptance,
compassion, and self-awareness. Similarly, Klassen-Bolding (2018) examined the experiences of participants in a mindfulness-based eating disorder prevention programme. The programme was reported as being enjoyable; participants developed healthier relationships with both food and their bodies; participants also reported increased awareness and improvement in the ability to regulate their emotions. While these studies suggested that the participants' experiences with mindfulness were positive, they did not, however, explore possible preventive factors for participants engagement with mindfulness practice.

The above-mentioned studies demonstrate the efficacy of mindfulness interventions and justify the need for the investigation of factors that could prevent the use of such mindfulness interventions in the domain of food craving. Since the issues that might prevent the application of brief mindfulness interventions have, however, not been explicitly explored in the relevant research, the findings under this section represent an important scholarly contribution of this study to the literature on brief mindfulness interventions for the reduction of food cravings in the context of emotional eating.

The current study identified several issues that could serve as barriers to the use of the brief mindfulness intervention during food cravings. Participants reported an initial difficulty "getting into", focusing and making the effort required to engage with the intervention. These findings present similarities with the findings by Tatar et al.'s (2021) qualitative research investigating how non-meditators learn and apply brief mindfulness instructions in food cravings. Participants in this study anticipated challenges in making the effort required to apply the instructions, finding the time, and being in the right stage of life to apply them. Previous research also indicates that

the high-level of commitment required for long-term mindfulness programmes such as mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT) that usually last eight weeks, has been a potential barrier for participants to commit (e.g., Chen et al., 2014; Crane and Kuyken, 2013; Lomas et al., 2015). Even though a brief mindfulness intervention, such as the one used for this study, does not require the same level of commitment from participants, this could potentially explain the initial difficulty that participants faced to engage with the Practice.

The participants also reported being affected by experiences of intense emotions that inhibited their ability to engage with the mindfulness intervention every time they experienced a food craving. Most participants particularly mentioned intense stress as "taking over" and "overpowering". These emotions were reported as unrelated to the intervention. Stress was caused by experiences such as workload, emotional pressures, and the requirement to meet deadlines for activities. Most participants said that the more intense the emotion, the less likely they were to engage with the mindfulness intervention. Rather, they would turn to the familiar emotional eating behaviour that was certain to make them feel better, as some said; thus, creating a vicious cycle that perpetuates emotional eating. Several participants mentioned that the brief mindfulness intervention used for this study in response to their food cravings also seemed to help them regulate their emotions, particularly stress. It seems, however, that the intensity of their felt emotions in some instances inhibited this effect. This finding could be explored further in future research to investigate the potential factors that could help facilitate the engagement with the intervention of people who eat emotionally, and thus make mindfulness practice more accessible.

Another challenge participants in this study were faced with was the difficulty of engaging with the mindfulness intervention in the presence of other people and/or in public. The ability of some of the participants to recall the mindfulness script, rather than having to listen to the four-minute audio recording provided to them, helped them navigate the challenge of people/public places. The findings on overcoming the presence of people and the public as a barrier to implementing mindfulness interventions is very important as it indicates strength in the use of brief mindfulness interventions. Some participants simply memorised the mindfulness script and were able to continue to implement the intervention despite the presence of others and/or being in public places.

4.4 Implications for Professional Practice

There are various types of difficult eating behaviours as described in the literature and encountered in counselling psychology practice including emotional eating. Emotional eating is defined in the literature as an increase in food consumption triggered by an internal state of emotional arousal, such as anger, fear, sadness, or happiness (van Strien et al., 1986) and this eating behaviour is the focus of this study. Emotional eating is distinct from external eating (an increase in food intake caused by external food cues as against an internal state of hunger or satiety) and restrained eating (the effort to reach or preserve the desired weight by decreasing one's calorie consumption) (van Strien et al., 1986). As noted in the literature, differentiating between mindfulness mechanisms can facilitate more targeted interventions that address specific eating behaviours (Alberts et al., 2012; Jenkins & Tapper, 2014; Kristeller et al., 2014; Lacaille et al., 2014; Papies et al., 2015; Papies et al., 2016;

Keesman et al., 2017). As Hanley et al. (2016) suggested, it is important for clinicians to know how a particular mindfulness-based intervention is expected to work and provide support for its successful implementation. Therefore, the findings of the current study that a combination of the mindfulness components of present moment awareness and decentering seems effective for reducing food cravings for people engaging in emotional eating, could support the provision of effective and targeted interventions for this group of individuals. Furthermore, the intervention used in this study may facilitate curriculum development and training since it adds to the literature that shows how different components of mindfulness can be applied to yield specific outcomes.

Additionally, this study identified some factors that prevented the use of the brief mindfulness intervention every time a participant experienced a food craving. These factors included the initial difficulty participants faced in "getting into", focusing and making the effort required to engage with the intervention. Participants also reported being affected by experiences of intense emotions that hindered their engagement with the mindfulness intervention every time they experienced a food craving. These findings could be important for clinical practice as they inform clinicians of the possible hindrances individuals who engage in disordered eating behaviours such as emotional eating could potentially face in engaging with mindfulness practice and could provide support for its successful implementation.

According to the standards of proficiency (HCPC, 2015), counselling psychologists should be able to engage in evidence-based and evidence-informed practice. However, people who eat emotionally do not necessarily fulfil the criteria for an eating disorder diagnosis which makes it difficult for them to find access to a specific treatment, especially within the National Health System (NHS) (Campbell, 2012). Currently, the National Institute for Health and Care Excellence (NICE, 2017) does not provide specific guidelines for the treatment of emotional eating. The findings from this study could add to the literature regarding the efficacy of brief mindfulness interventions, which specifically include the components of present moment awareness and decentering, in the reduction of food cravings in the context of emotional eating and contribute to the development of specific interventions and treatment guidelines for people who eat emotionally but do not fulfil the criteria for a formal diagnosis. They could also add to the literature regarding the effectiveness of brief mindfulness interventions across various domains such as food cravings, emotional eating, and emotion regulation. For instance, clinicians could use brief mindfulness interventions to weaken the link between emotions and food cravings and to create space for change in the emotional eating behaviour that follows. In addition, the continuous use of brief mindfulness practice could potentially provide emotionally eating individuals with an alternative way of regulating their emotions that could replace eating.

4.5 Future Directions and Limitations

Several opportunities for future directions in research were identified during this discussion. Various findings from this study indicate the need for future research that could expand the understanding of the processes involved in the application of a brief mindfulness intervention in response to food cravings for people who eat emotionally.

One of the findings of this study was that a dual effect existed where a brief mindfulness intervention utilising the components of present moment awareness and decentering was applied in response to food cravings by people engaging in emotional eating behaviour. A dual effect of reduction in food craving and emotional regulation, specifically a reduction in stress was achieved. However, since stress reduction was not specifically addressed with this brief mindfulness intervention, a future direction for research could be to further explore the mechanisms and processes that might have led to the occurrence of this effect.

Results from this study also suggested that it was mainly the combination of the mindfulness components of present moment awareness and decentering that participants found most effective in response to their food cravings. The majority of the participants described these two strategies as working together every time they applied the intervention. Previous research has shown that the components of mindfulness can be studied separately to understand the effectiveness of each skill on specified outcomes (e.g., Jenkins & Tapper, 2014; Lacaille et al., 2014). Future research could compare the effectiveness of using present moment awareness and decentering as stand-alone mindfulness strategies as well as the combination of the two in reducing food cravings for people engaging in emotional eating. Such evidence could help in the development of more effective brief mindfulness interventions for this population.

Another finding from this study suggested that the response to a brief mindfulness intervention and eventual reduction of food cravings for participants engaging in emotional eating occurs through a cascade of responses and processes. Present moment awareness is located at the lower end of the cascade representing a critical

framework upon which other response cascades are built. The next step of the cascade is the combination of decentering and present moment awareness. The following step is empowerment and a sense of control. At the top of the cascade is the decision taken by the participant such as reducing consumption of food or making a different choice. Additional research can be undertaken to test this concept as the existence of a cascade and a better understanding of the process would facilitate the implementation of more effective brief mindfulness interventions for food cravings and emotional eating.

Additionally, most participants in this study expressed the intention to continue using the brief mindfulness intervention and incorporated it into their daily lives after the end of the study. Several participants even described ways to personalise the intervention to enhance its effectiveness according to their needs and to make its application easier for them. Future research could explore this intention further through follow-up interviews three and/or six months after the end of the intervention. The results could illuminate the long-term effects of the incorporation of the intervention into participants' daily lives, as well as the ways this incorporation was achieved, and possible barriers faced by the participants.

Some of the methodological limitations associated with this study also suggest opportunities for additional research. As noted previously, the majority of the existing research in this area has largely been conducted using quantitative methodologies and such methods do not allow for the in-depth exploration of participants' experience obtained in qualitative studies (Willig, 2013). Specifically, the need for qualitative studies on the subject of food cravings and mindfulness-based intervention has been

identified by several scholars (e.g., Pidgeon et al., 2013; Keesman et al., 2019; Schumacher et al., 2018; Tatar et al., 2021). The current study was accordingly conducted using qualitative methodology to elicit rich data on the experience of each participant. Data were collected using the semi-structured interview method. This method of data collection affords the researcher the flexibility to pursue emerging ideas and statements to obtain the full description of a research event and its context (Braun and Clarke, 2013; Willig, 2013). In the current study, when discussing the issues that prevented the use of the brief mindfulness intervention, some participants reported some barriers like an initial difficulty "getting into", focusing and making the effort required to engage with the intervention. While these participants were eventually able to focus and engage in the intervention, a methodological aberration was that the study did not elicit the exact processes that the participants went through in overcoming these barriers. An exploration of these dimensions would have yielded important information that could be applied to support persons who are about to begin a brief mindfulness intervention in response to food cravings for emotional eating, to ease their entry into the process.

Another limitation of this study is related to the sample used. Gender imbalance is a limitation of this sample. Out of the ten participants, eight were female and two were male. This was due to the interest expressed in the study and eligibility. This is in line with previous literature that shows that male participants have been under-represented in mindfulness relevant research (Bodenlos et. al., 2017). A study with a more balanced sample could explore whether there are gender differences regarding the effectiveness of a brief mindfulness intervention on food cravings in the context of emotional eating.

4.6 Evaluation of the Research

As already mentioned in the methodology chapter of this research, the four proposed validity principles for qualitative research by Yardley (2000) were followed for this study: 1) sensitivity to context, 2) commitment and rigour, 3) transparency and coherence and 4) impact and importance.

1) Sensitivity to context was maintained through the contextualisation of this research in relation to the relevant literature, maintaining sensitivity to participants' perspectives, and remaining sensitive to the data during the analysis process. 2) Commitment and rigour were demonstrated by being attentive to each participant during data collection and analysis as well as striving to develop competence in the analysis of data using TA. 3) Transparency and coherence were demonstrated by clearly describing each stage of the research and making clear connections with the relevant literature and theory, as well as by presenting participants' excerpts. 4) The impact and importance of this study are clearly presented and discussed in the implications for professional practice and future directions parts of this chapter. The emergent findings from the analysis of data could have both a theoretical and practical impact on counselling psychology in the area of brief mindfulness interventions for food cravings and emotional eating.

4.7 Reflexivity

During the course of this research, I remained aware of my position as a researcher and how my personal interests, beliefs and experiences could affect this study

(Willing, 2013). As I have mentioned previously in this study, I have a personal interest and experience with mindfulness practice as well as the area of food cravings and emotional eating. I have found that practising mindfulness has had a positive effect on me as a practitioner as well as a person. Specifically, practising mindfulness has helped me in reducing stress, remaining present and reducing my emotional eating behaviours. In the course of this research, I have consistently tried to remain aware and mindful of my personal biases and assumptions regarding the effectiveness of mindfulness practice. During the interviews, I believe that my shared experiences helped to strengthen my rapport with the participants, which could have contributed to their feeling safe and understood and opening up further regarding their experiences. During the analysis of the results, I tried to remain open and focused on being led by the data. At the same time, I acknowledge that my personal experience with emotional eating and mindfulness might have somewhat influenced my understanding of the participants' experiences.

4.8 Conclusion

This study explored the experience of participants applying a brief mindfulness intervention in response to food cravings in the context of emotional eating. Specifically, this study aimed at exploring the effects of a brief mindfulness intervention on food cravings for a period of seven days, which components of mindfulness were at work during the intervention and identifying issues that might prevent participants from engaging with the intervention every time they experienced a food craving. The findings from this research suggest that the brief mindfulness intervention had positive effects on food cravings and emotional eating behaviour. The results of this study are important because they suggest that brief mindfulness interventions can be effective and can have a practical application by being easily incorporated into participants' everyday lives. These results also add to the literature on the effectiveness of brief mindfulness interventions for the reduction of food cravings (e.g., Papies et al., 2012; Shumacher et al., 2018; Tapper & Turner, 2018; Wilson et al., 2021).

Specifically, results from this study indicated that a brief mindfulness intervention that combines the components of present moment awareness and decentering can have positive effects on food cravings and emotional eating for people who engage in such behaviour. This finding could inform clinical practice and the development of effective and targeted brief mindfulness interventions for people engaging in emotional eating.

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Appendices

Appendix 1



Invitation for Participants

Do you find yourself craving for food when you feel sad, lonely or stressed? Would you like to have a skill that could help you reduce your cravings?



If your answer is **Yes** to these questions, then you are invited to participate in my doctorate research which aims to explore the experience of applying a brief mindfulness meditation on food cravings for people engaging in emotional eating behaviours.

Your participation will involve applying a brief mindfulness meditation (approx. 3 - 4 minutes), every time you experience a food craving for 7 days.

You will receive a **£20** Amazon voucher, as compensation for taking the time to participate in my research. Your participation would be valuable in helping to develop knowledge and understanding of my research topic and will provide you with a skill to address your food cravings.

To express your interest in participating please contact Anna Tavoulari – Counselling Psychologist in training, email: <u>u1803931@uel.ac.uk</u>

Thank you!

Appendix 2



PARTICIPANT INVITATION LETTER

You are being invited to participate in a research study. Before you agree it is important that you understand what your participation would involve. Please take time to read the following information carefully.

Who am I?

I am a postgraduate student in the School of Psychology at the University of East London and am studying for a Professional Doctorate in Counselling Psychology. As part of my doctorate thesis I am conducting the research you are being invited to participate in.

What is the research?

I am conducting research into the experience of applying a brief mindfulness practise on food cravings for people engaging in emotional eating behaviours.

My research has been approved by the School of Psychology Research Ethics Committee. This means that the Committee's evaluation of this ethics application has been guided by the standards of research ethics set by the British Psychological Society.

Why have you been asked to participate?

You have been invited to participate in my research as someone who fits the kind of people I am looking for to help me explore my research topic. I am looking to involve people who self-identify as engaging in emotional eating, experience food cravings at least once a day and are over 18. You may not participate in this study if you have a diagnosis of an eating disorder or other mental health condition, currently taking medication that affect appetite (e.g. antidepressants) and if you engage in substance or alcohol abuse.

I emphasise that I am not looking for 'experts' on the topic I am studying. You will not be judged or personally analysed in any way and you will be treated with respect.

Your participation in this study is voluntary.

What will your participation involve?

If you agree to participate you will be invited for an initial meeting (approx. 15 - 20 minutes). During which I will go over the procedure with you in detail. Your participation will involve applying a brief mindfulness practice (approx. 3 - 4 minutes), provided by the researcher both in writing and audio form, every time you experience a food craving for the next 7 days. Then you will be invited again for a semi-structured interview (approx. 50 - 60 minutes). The interview will be audio taped.

You will receive a £20 Amazon voucher, at the end of the final interview, as compensation for taking the time to participate in my research. Your participation would be very valuable in helping to develop knowledge and understanding of my research topic and could potentially provide you with a skill to address your food cravings and emotionally eating behaviours.

Your taking part will be safe and confidential

Your privacy and safety will be respected at all times. You will not be identified by the data collected, on any written material resulting from the data collected, or in any write-up of the research. You can stop your participation at any time during the 7-day practice period and/or the interview.

What will happen to the information that you provide?

The material you provide will be coded and anonymised. Will be kept at a safe, password and fingerprint protected laptop which will be kept at a locked location. Personal information (e.g. email) will be kept separately from data (e.g. audio recording and transcript). Only the researcher and the researcher's supervisor will have access to the data. Data will be kept for approximately 5 years after your participation after which time they will be destroyed.

What if you want to withdraw?

You are free to withdraw from the research study at any time without explanation, disadvantage or consequence. Separately, you may also request to withdraw your data even after you have participated (a unique code will be provided to you for identification), provided that this request is made within 3 weeks of the data being collected after which point the data analysis will begin, and withdrawal will not be possible.

Contact Details

If you would like further information about my research or have any questions or concerns, please do not hesitate to contact me.

Name: Anna Tavoulari - Counselling Psychologist in training

email: u1803931@uel.ac.uk

If you have any questions or concerns about how the research has been conducted, please contact the research supervisor Dr Jeeda Alhakim. School of Psychology,

University of East London, Water Lane, London E15 4LZ, Email: J.Alhakim@uel.ac.uk

or

Chair of the School of Psychology Research Ethics Sub-committee: Dr Tim Lomas, School of Psychology, University of East London, Water Lane, London E15 4LZ. (Email: t.lomas@uel.ac.uk)

Appendix 3



UNIVERSITY OF EAST LONDON

Consent to participate in a research study

An initial exploration of the experience of applying a brief mindfulness practise on food cravings for people engaging in emotional eating behaviours. A qualitative study.

I have read the information sheet relating to the above research study and have been given a copy to keep. The nature and purposes of the research have been explained to me, and I have had the opportunity to discuss the details and ask questions about this information. I understand what is being proposed and the procedures in which I will be involved have been explained to me.

I understand that my involvement in this study, and particular data from this research, will remain strictly confidential. Only the researcher(s) involved in the study will have access to identifying data. It has been explained to me what will happen once the research study has been completed.

I hereby freely and fully consent to participate in the study which has been fully explained to me. Having given this consent I understand that I have the right to withdraw from the study at any time without disadvantage to myself and without being obliged to give any reason. I also understand that I can withdraw within 3 weeks after final data collection after which point data analysis will begin and the researcher reserves the right to use my anonymous data.

Participant's Name (BLOCK CAPITALS)

Participant's Signature

.....

Researcher's Name (BLOCK CAPITALS)

.....

Researcher's Signature

Date:

Appendix 4

Demographic/Screening Questionnaire

Name: _	
Age:	
Gender:	

Definitions:

- Emotional eating has been defined as eating in reaction to emotional cues, often as a way to manage negative emotions (Kandiah et al., 2006; Konttinen et al., 2010).
- Food craving has been defined as an intense desire to consume a specific food or group of foods (Preedy et al., 2011).

Please answer the following questions:

- 1. Do you find yourself eating when you are sad, lonely or stressed?
- 2. How often within a day do you experience food cravings?
- 3. How often do you engage in emotional eating?
- 4. Do you have a diagnosis of an eating disorder or other mental health condition?
- 5. Do you currently take any medication that might affect your appetite?
- 6. Do you currently engage in substance or alcohol abuse?
- 7. What is your experience with mindfulness?

Thank you!

Appendix 5

Mindfulness Practice

I would like to invite you to sit comfortably, for example on a chair. Take a deep breath in and as you exhale close your eyes if it feels comfortable. If not, let your gaze fall unfocused on the floor in front of you.

With your next breath, I would like to invite you to imagine looking at a waterfall. The constant stream of water is like your stream of thoughts about food. The stream goes on continuously, and the water can easily carry you away if you end up in it. Observe the stream carrying your thoughts away and simply step behind the waterfall. This way, you can simply look at all the water that is passing by.

You can also deal with your thoughts about food this way. Observe the thoughts that you have about food and look at them come up and go away.

Try to notice the thoughts, physical sensations, and emotions that come up in relation to food. But also realize that these are merely mental events. They are merely passing phenomena that are being produced by your mind. And because of that, you don't have to do anything about them. Your thoughts about the food will always simply disappear by themselves. Just like the water in the waterfall, simply try to observe how your thoughts go by, while you try to stay aware of where you are right now – on a chair, in this room.

However vivid or intense your thoughts about food are, try not to suppress them or to avoid them. Simply note how they come up and disappear again. Just like you might not react to a few drops of water coming from the waterfall and you just let them go. You can do the same with your thoughts about food.

You may still find yourself being carried away by your food thoughts now and again. This is not a mistake or a failure – it is simply what happens sometimes and is very natural.

As soon as you notice this, just let it go and try to again adopt the perspective of observing how your thoughts about food pass by, like the water.

While you're doing this, it can be helpful to remain aware of the situation in which you currently are. Try to feel the weight of your body resting on the chair and feel how your feet are resting on the ground.
Continue to see all your thoughts about food as passing, like the waterfall, you can simply observe them pass by and you don't have to do anything about them.

And now as we are coming to the end, with your next breath, wiggle your fingers and your toes and when you are ready open your eyes.

Daily Record

DAY 1	FOOD CRAVING	MINDFULNESS	COMMENTS
	-Did you experience a food	-Did you apply the practice?	-Did you find the practice
	craving? (e.g. you could	-If not, what kept you from	helpful?
	mention when, what	applying it?	-If yes, which particular part did
	happened, feelings etc.)		you find most helpful?
			-If no, what was not helpful about
			it?
Event 1			
Event 2			
Event 3			
Event 4			
Event 5			
Lvent 5			
Event 6			
Event 7			



PARTICIPANT DEBRIEF LETTER

Thank you for participating in my research study on the experience of applying a brief mindfulness practise on food cravings for people engaging in emotional eating behaviours. This letter offers information that may be relevant in light of you having now taken part.

What will happen to the information that you have provided?

The following steps will be taken to ensure the confidentiality and integrity of the data you have provided.

The material you provide will be coded and anonymised. Will be kept at a safe, password and fingerprint protected laptop which will be kept at a locked location. Personal information (e.g. email) will be kept separately from data (e.g. audio recording and transcript). Only the researcher and the researcher's supervisor will have access to the data. Data will be kept for approximately 5 years after your participation after which time they will be destroyed. You can withdraw the data you provided within 3 weeks after your participation. A unique code will be provided to you for identification.

What if you have been adversely affected by taking part?

It is not anticipated that you will have been adversely affected by taking part in the research, and all reasonable steps have been taken to minimise potential harm. Nevertheless, it is still possible that your participation – or its after-effects – may have been challenging, distressing or uncomfortable in some way. If you have been affected in any of those ways you may find the following resources/services helpful in relation to obtaining information and support:

- Newham Talking Therapies, Telephone: 020 8475 8080.

- Emergency contacts: 24 hours crisis line: 020 7771 5888. Samaritans: 116 123.

Contact Details

If you would like further information about my research or have any questions or concerns, please do not hesitate to contact me. Mrs Anna Tavoulari – Counselling Psychologist in Training. Email: <u>u1803931@uel.ac.uk</u> If you have any questions or concerns about how the research has been conducted,

please contact the research supervisor Dr Jeeda Alhakim. School of Psychology,

University of East London, Water Lane, London E15 4LZ, Email:

J.Alhakim@uel.ac.uk or

Chair of the School of Psychology Research Ethics Sub-committee: Dr Tim Lomas, School of Psychology, University of East London, Water Lane, London E15 4LZ. Email: <u>t.lomas@uel.ac.uk</u>

Interview Schedule

- 1) How would you describe your experience of applying the mindfulness practice during the last 7 days?
- 2) Could you describe how applying the mindfulness practice over the last 7 days has affected your emotional eating behaviour?
- 3) Could you describe the specific aspects of the mindfulness practice that you found most helpful?
- 4) Could you describe the specific aspects of the mindfulness practice that you found most unhelpful?
- 5) Could you describe anything that has prevented you from applying the mindfulness practice every time you experienced a food craving?
- 6) Could you describe anything that might prevent you from applying the mindfulness practice every time you experience a food craving in the future?

Prompting Questions

- Could you tell me a little more about that?
- Is there anything else that you would like to add?

Thank you for your participation!

Transcript example with notes and codes

	28. the exercise inner the		
Reduced cravit and	28, the exercise immediately because of the lecture, 18 29, but after it I had a bit of chocolate after the		
Consumption o day one.			
2	31. normally have But as the days went forward it	- 1 - 1	
More effective with time.	32. was more and more effective and the last two	Transferable	
Last two days didn't need to	33. days, I believe, I didn't even have to use the	1.31-35	
Listen to the audio. The practice in his head.	34. exercise, I just run it through my mind		
	35. automatically Mainly the biggest thing that I		
	36. realised is that I was aware of these things, but	Marcuse	
Increased awareness of	37. this exercise really allowed me to realise it even	f. 35-45	
Automatic thoughts about	38. more, how we are directed by those automatic		
Food and their	39. thoughts that we don't even think, they're just		-
effect on	40. happening there in the background and they		-
Behaviour.	41. direct our thoughts and our behaviours. So, I	6	11
Increased awareness	42, made those subconscious thoughts conscious and	Control. 1.35-45	1
gave a sense of control over the automatic thoughts about food.	43. I was able to control them as a result and the	(
More effective with time/practice	44. more I did it, the more I practice, the easier it	-	
	45. gotten.		-
	46. I: Great. You have already touched on my next		-

Excel document: Individual Extracts



Excel document: Codes/Extracts



Excel document print out



Potential Themes	Potential Subthemes
- Difficulties	 Difficulty to concentrate at first Disbelief in the effectiveness of the practice Slow start/Too much effort Difficult to apply the intervention in public/presence of others Comfort eating as a habit hinders the use of the practice
- Thoughts as transient events	Use of imageryDifferent perspective
- Acquired skill	 No need for the audio Better with intervention Use in different context
- Effects of the intervention	 Reduce food craving Reduce consumption Make another choice Hinder the impulsive behaviours that follow a food craving
- Sense of empowerment	- Taking control over food cravings/behaviour
- Increase awareness	 Increase moment-to-moment awareness Taking time to refocus/Slowing down Help to make a distinction between physical hunger and craving emotionally
- Dual effect of the intervention	 Relaxing effect Emotional regulation and food craving reduction
- Intense emotions	 Hindering the effectiveness of the practice Preventing the use of the intervention
- Moving forward	 Continue using the intervention in the future Transferable skill for other situations like stress reduction Incorporate the practice into daily life Adjusting the intervention to fit the individual (adding a picture of a waterfall or sound)

Potential Themes and subthemes

Final themes and subthemes

1. The process of applying the	1.1 Initial challenges	
mindfulness intervention	1.2 Blocked by intense emotions	
	1.3 In the presence of others	
	1.4 Acquired skill	
2. Components at work during the	2.1 Thoughts as transient events	
mindfulness intervention	2.2 Present Moment Awareness	
3. Effects of the mindfulness	3.1 Food cravings	
intervention	3.2 Dual effect	
4. Life after	4.1 Transferable skill	
	4.2 Incorporate mindfulness into daily life	

School of Psychology Research Ethics Committee

NOTICE OF ETHICS REVIEW DECISION

For research involving human participants

BSc/MSc/MA/Professional Doctorates in Clinical, Counselling and Educational Psychology

REVIEWER: Kirstie Soar

SUPERVISOR: Jeeda Alhakim

STUDENT: Anna Tavoulari

Course: Professional Doctorate in Counselling Psychology

Title of proposed study: An initial exploration of the experience of applying a brief mindfulness practice on food cravings for people engaging in emotional eating behaviours. A qualitative study.

DECISION OPTIONS:

- 1. APPROVED: Ethics approval for the above named research study has been granted from the date of approval (see end of this notice) to the date it is submitted for assessment/examination.
- 2. APPROVED, BUT MINOR AMENDMENTS ARE REQUIRED BEFORE THE RESEARCH COMMENCES (see Minor Amendments box below): In this circumstance, re-submission of an ethics application is <u>not</u> required but the student must confirm with their supervisor that all minor amendments have been made <u>before</u> the research commences. Students are to do this by filling in the confirmation box below when all amendments have been attended to and emailing a copy of this decision notice to her/his supervisor for their records. The supervisor will then forward the student's confirmation to the School for its records.
- 3. NOT APPROVED, MAJOR AMENDMENTS AND RE-SUBMISSION REQUIRED (see Major Amendments box below): In this circumstance, a revised ethics application must be submitted and approved before any research takes place. The revised application will be reviewed by the same reviewer. If in doubt, students should ask their supervisor for support in revising their ethics application.

DECISION ON THE ABOVE-NAMED PROPOSED RESEARCH STUDY

(Please indicate the decision according to one of the 3 options above)

2. APPROVED MINOR CONDITIONS

Minor amendments required (for reviewer):

- participants emails will be needed to send consent forms etc consideration needs to be given on how these are stored and should be stored separately from data and participants informed of this in the invitation letter

- clarify how the questionnaire will be completed – verbally with the researcher or will this also be emailed and request to be sent back

- please clarify what online resource will be used for video calling – note UEL supports MS Teams only just to data protection issues.

- clarify how will participants be informed and subsequently confirmed, that they don't meet the exclusion criteria – they don't appear on the invitation letter

- clarify with the participants (via invitation letter) what you mean by 'data; in terms of confidentiality and also storage and destroying – there are several types – emails, audio recordings and transcription - will they all be treated the same?

- clarify with the participants (via invitation) letter how they go about withdrawing their data at a later date – i.e. need to email you and provide unique code to help identify transcript?

- adjust last paragraph of consent form to match time frame indicated in invitation letter of period of withdrawal of data

- adjust debrief based on responses to above where necessary so they all align

Major amendments required (for reviewer):

Confirmation of making the above minor amendments (for students):

I have noted and made all the required minor amendments, as stated above, before starting my research and collecting data.

Student's name (*Typed name to act as signature*): Anna Tavoulari Student number: u1803931

Date: 21/05/2020

(Please submit a copy of this decision letter to your supervisor with this box completed, if minor amendments to your ethics application are required)

ASSESSMENT OF RISK TO RESEACHER (for reviewer)

Has an adequate risk assessment been offered in the application form?

YES

Please request resubmission with an adequate risk assessment

If the proposed research could expose the <u>researcher</u> to any of kind of emotional, physical or health and safety hazard? Please rate the degree of risk:



Please do not approve a high risk application and refer to the Chair of Ethics. Travel to countries/provinces/areas deemed to be high risk should not be permitted and an application not approved on this basis. If unsure please refer to the Chair of Ethics.



MEDIUM (Please approve but with appropriate recommendations)

Reviewer comments in relation to researcher risk (if any).

Please ensure exclusion criteria is communicated to participants and adhered to remove the risk of including vulnerable participants

Reviewer (*Typed name to act as signature*):

Kirstie Soar

Date: 12.05.20

This reviewer has assessed the ethics application for the named research study on behalf of the School of Psychology Research Ethics Committee

RESEARCHER PLEASE NOTE:

For the researcher and participants involved in the above named study to be covered by UEL's Insurance, prior ethics approval from the School of Psychology (acting on behalf of the UEL Research Ethics Committee), and confirmation from students where minor amendments were required, must be obtained before any research takes place.

For a copy of UELs Personal Accident & Travel Insurance Policy, please see the Ethics Folder in the Psychology Noticeboard



University of East London Psychology

REQUEST FOR TITLE CHANGE TO AN ETHICS APPLICATION

FOR BSc, MSc/MA & TAUGHT PROFESSIONAL DOCTORATE STUDENTS

Please complete this form if you are requesting approval for proposed title change to an ethics application that has been approved by the School of Psychology.

By applying for a change of title request you confirm that in doing so the process by which you have collected your data/conducted your research has not changed or deviated from your original ethics approval. If either of these have changed then you are required to complete an Ethics Amendments Form.

HOW TO COMPLETE & SUBMIT THE REQUEST

- 1. Complete the request form electronically and accurately.
- 2. Type your name in the 'student's signature' section (page 2).
- Using your UEL email address, email the completed request form along with associated documents to: <u>Psychology.Ethics@uel.ac.uk</u>
- 4. Your request form will be returned to you via your UEL email address with reviewer's response box completed. This will normally be within five days. Keep a copy of the approval to submit with your project/dissertation/thesis.

REQUIRED DOCUMENTS

1. A copy of the approval of your initial ethics application.

Name of applicant:	Anna Tavoulari
Programme of study:	Professional Doctorate in Counselling Psychology

Briefly outline the nature of your proposed title change in the boxes below

Proposed amendment	Rationale
Old Title: An initial exploration of the experience of applying a brief mindfulness practice on food cravings for people engaging in emotional eating behaviours. A qualitative study. New Title: Exploring the experience of participants applying a brief mindfulness practice targeting food cravings for people engaging in emotional eating behaviour. A Thematic Analysis.	The new proposed title represents better the purpose and nature of the research study.

Please tick	YES	NO
Is your supervisor aware of your proposed amendment(s) and agree to them?		
Does your change of title impact the process of how you collected your data/conducted your research?		\checkmark

Student's signature (please type your name): Anna Tavoulari

Date: 15/06/2021

TO BE COMPLETED BY REVIEWER		
APPROVED		

Reviewer: Glen Rooney

Date: 17/06/2021

CHANGE OF TITLE REQUEST FORM



School of Psychology Ethics Committee

REQUEST FOR TITLE CHANGE TO AN ETHICS APPLICATION

For BSc, MSc/MA and taught Professional Doctorate students

Please complete this form if you are requesting approval for a proposed title change to an ethics application that has been approved by the School of Psychology

By applying for a change of title request, you confirm that in doing so, the process by which you have collected your data/conducted your research has not changed or deviated from your original ethics approval. If either of these have changed, then you are required to complete an 'Ethics Application Amendment Form'.

How to complete and submit the request				
1	Complete the request form electronically.			
2	2 Type your name in the 'student's signature' section (page 2).			
	Using your UEL email address, email the completed request form along with associated			
3	documents to Dr Jérémy Lemoine (School Research Ethics Committee Member):			
	j.lemoine@uel.ac.uk			
4	Your request form will be returned to you via your UEL email address with the reviewer's			
4	decision box completed. Keep a copy of the approval to submit with your dissertation.			

Required documents

A copy of the approval of your initial ethics application.

YES

Details	
Name of applicant:	ANNA TAVOULARI

Programme of study:		Professional Doctorate in Counselling Psychology		
Title of research:		Exploring the experience of participants applying a brief mindfulness practice targeting food cravings for people engaging in emotional eating behaviour. A Thematic Analysis.		
Name of supervisor:		Dr Jeeda Alhakim		
Proposed title change				
Briefly outline	Briefly outline the nature of your proposed title change in the boxes below			
Old title:	Exploring the experience of participants applying a brief mindfulnesstitle: practice targeting food cravings for people engaging in emotional eating behaviour. A Thematic Analysis.			
New title:	Exploring the experience of participants applying a brief mindfulness intervention in response to food cravings for people engaging in emotional eating behaviour. A Thematic Analysis.			
Rationale:The new proposed title r the research study.		sed title represents better the purpose and nature of udy.		

Confirmation			
Is your supervisor aware of your proposed change of title and in agreement with it?	YES	NO	
Does your change of title impact the process of how you collected your data/conducted your research?	YES	NO ⊠	

Student's signature	
Student: (Typed name to act as signature)	ANNA TAVOULARI
Date:	09/03/2022

Reviewer's decision		
Title change approved:	YES	NO □
Comments:	The new title reflects better the research study and will not impact the process of how the data are collected or how the research is conducted	

Reviewer: (Typed name to act as signature)	Dr Jérémy Lemoine
Date:	10/03/2022